NOTICES OF FINAL RULEMAKING

The Administrative Procedure Act requires the publication of the final rules of the state's agencies. Final rules are those which have appeared in the *Register* 1st as proposed rules and have been through the formal rulemaking process including approval by the Governor's Regulatory Review Council. The Secretary of State shall publish the notice along with the Preamble and the full text in the next available issue of the *Arizona Administrative Register* after the final rules have been submitted for filing and publication.

NOTICE OF FINAL RULEMAKING

TITLE 2. ADMINISTRATION CHAPTER 1. DEPARTMENT OF ADMINISTRATION

PREAMBLE

1.	Sections Affected	Rulemaking Action
	R2-1-901	Amend
	R2-1-902	Amend
	R2-1-903	Amend
	R2-1-904	Amend

2. The specific authority for the rulemaking, including both the authorizing statute (general) and the statutes the rules are implementing (specific):

Authorizing statute: A.R.S. § 41-703

Implementing statute: A.R.S. § 41-786

3. The effective date of the rules:

September 11, 1997

4. A list of all previous notices appearing in the Register addressing the adopted rule.

Notice of Rulemaking Docket Opening: 3 A.A.R. 370, February 7, 1997.

Notice of Proposed Rulemaking: 3 A.A.R. 1296, May 16, 1997.

5. The name and address of agency personnel with whom persons may communicate regarding the rulemaking:

Name:

Kayelen Corley

Address:

Department of Administration

1700 West Washington, Suite 420

Phoenix, Arizona 85007

Telephone:

(602) 542-3632

Fax:

(602) 542-3636

6. An explanation of the rule, including the agency's reasons for initiating the rule:

These rules, as originally adopted, allow the state to participate in a vanpool program operated by a regional transit authority and to provide a vanpool subsidy to the regional transit authority on behalf of eligible state employees. The rules are being amended to allow a state agency to administer a vanpool program in areas not serviced by a regional transit authority, and for that agency to receive a vanpool subsidy on behalf of eligible state employees. The change was requested by the Department of Corrections because the regional transit authority in Pima County does not administer a vanpool program. The Department of Corrections will be administering their own vanpool program to serve their employees living in Tucson and commuting to the correctional facility in Florence.

7. A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision of this state:

Not applicable.

8. The summary of the economic, small business, and consumer impact:

The rules will allow the use of vanpools to destinations outside the 2 counties currently in Vehicle Emissions control areas. The secondary effect is to promote the specific employment opportunities at the Department of Corrections facility that requested the rule change. The lowering of pollution from consolidating up to 9 commuters into 1 vehicle is significant. The need for parking at the state offices served and the lower congestion on the state highways are additional benefits that accrue to the public.

9. A description of the changes between the proposed rules, including supplemental notices, and final rules (if applicable):
None.

10. A summary of the principal comments and the agency response to them:

No comments were made to the proposed rules.

11. Any other matters prescribed by statute that are applicable to the specific agency or to any specific rule or class of rules:

None.

12. Incorporations by reference and their location in the rule:

None.

13. Was this rule previously adopted as an emergency rule?

No.

14. The full text of the rules follows:

TITLE 2. ADMINISTRATION

CHAPTER 1. DEPARTMENT OF ADMINISTRATION

ARTICLE 9. REIMBURSEMENT FOR VANPOOL TRANSPORTATION

Section

R2-1-901. Definitions

R2-1-902. Vanpool Reimbursement Subsidy Eligibility Vanpool Reimbursement Subsidy Amount Vanpool Reimbursement Subsidy Procedure

ARTICLE 9. REIMBURSEMENT FOR VANPOOL TRANSPORTATION

R2-1-901. Definitions

In this Article, unless otherwise specified, the following terms apply the context otherwise requires:

- 1. "Commute" means <u>travel</u> traveling to and from an employee's place of employment.
- "Director" means the director of the Department of Administration or the Director's designee.
- "Eligible employee Employee" means an individual who is employed by the state of Arizona in a paid work status who lives or works in a vehicle emissions control area, as defined in A.R.S. § 49-541, except university employees and those employees subject to the provisions of A.R.S. § 23-981(01).
- "Paid work status" means the condition of an employee of the state of Arizona who is receiving pay for work or for compensated absence from work the State of Arizona.
- "Reduced cost" means the eligible employee's share of the total cost of vanpool transportation which that remains after the reimbursement subsidy has been paid.
- 6. "Reimbursement subsidy" means the portion of the total cost of vanpool transportation which that is paid, on behalf of an eligible employee, to a regional transit authority or state agency through a contract with the state of Arizona. on behalf of an eligible employee.
- "Regional transit authority" means an incorporated city or town, regional public transportation authority as defined in A.R.S. § 28-2502(A), or regional transportation authority as defined in A.R.S. § 28-2902(A) which that operates or licenses a vanpool program.

- 8. "State agency" means an agency which administers a vanpool program in an area not served by a regional transit authority.
- <u>9.8.</u> "Vanpool" means <u>7</u> or more persons <u>who commute</u> commuting in a van sponsored by a regional transit authority or administered by a state agency.

R2-1-902. Vanpool Reimbursement Subsidy Eligibility

A reimbursement subsidy shall be paid to a regional transit authority or a state agency on behalf of an eligible employee in a paid work status who:

- 1. Commutes in a vanpool operated by the regional transit authority or administered by a state agency; and
- 2. Has completed the vanpool reimbursement subsidy application form.

R2-1-903. Vanpool Reimbursement Subsidy Amount

The <u>Director shall determine the</u> amount of reimbursement subsidy, of up to 100% of the actual cost of vanpool transportation, shall be determined by the <u>Director</u> according to the following: the number of eligible employees participating in the program, the cost of vanpooled transportation, and the amount of state funds appropriated by the legislature for reimbursement subsidy purposes. The <u>Director shall will</u> notify employees of the initial percentage of subsidy prior to enrollment of the employee in into the program and of any change in that percentage prior to the change taking effect.

R2-1-904. Vanpool Reimbursement Subsidy Procedure

The Upon receipt, from the regional transit authority of a detailed or state agency shall submit to the Director an invoice that itemizes each eligible employee and the eligible employee's monthly vanpool reimbursement subsidy amount, the The Director shall Department of Administration will pay the reimbursement subsidy amount upon receipt of the invoice from to the regional transit authority or the state agency. The employee shall pay the reduced cost to the regional transit authority or the state agency, remainder of the total monthly vanpool cost, considered the reduced cost, will be billed by the regional transit authority, or its designee, and the employee will pay that amount.

Notices of Final Rulemaking

NOTICE OF FINAL RULEMAKING

TITLE 2. ADMINISTRATION

CHAPTER 8. STATE RETIREMENT SYSTEM BOARD

PREAMBLE

1.	Sections Affected	Rulemaking Action
	R2-8-123	Amend
	Table 1	Amend
	Table 2	Amend
	Table 3	Amend
	Table 5	Repeal
	Table 5	New Table
	Table 6	Repeal
	Table 6	New Table
	Table 7	Repeal
	Table 7	New Table

2. The specific authority for the rulemaking, including both the authorizing statute (general) and the statutes the rules are implementing (specific):

Authorizing statute: A.R.S. § 38-714(E)(5)

Implementing statutes: A.R.S. §§ 38-711(2), and (24), 38-714(G)(3), 38-736, and 38-737

3. The effective date of the rules:

September 12, 1997

4. A list of all previous notices appearing in the Register addressing the final rule.

Notice of Proposed Rulemaking: 3 A.A.R. 4, January 3, 1997

Notice of Emergency Rulemaking: 3 A.A.R. 526, February 21, 1997

Notice of Rulemaking Docket Opening: 3 A.A.R. 1877, July 11, 1997

Notice of Rulemaking Docket Opening: 3 A.A.R. 1932, July 18, 1997

Notice of Public Information: 3 A.A.R. 1993, July 25, 1997

5. The name and address of agency personnel with whom persons may communicate regarding the rulemaking:

Name:

Thomas Finnerty

Address:

State Retirement System Board 3300 North Central Avenue

P.O. Box 33910

Phoenix, Arizona 85067-3910

Telephone:

(602) 240-2027

Fax:

(602) 240-2083

6. An explanation of the rule, including the agency's reasons for initiating the rule:

The Arizona State Retirement System Board (Board) has adopted amendments to R2-8-123 in order to implement A.R.S. §§ 38-711(2) and (24), 38-714(G)(3), 38-736, and 38-737.

A.R.S. § 38-714(G)(3) requires the Board to conduct an annual actuarial valuation of the ASRS assets and liabilities.

The determination of "normal costs" as defined in A.R.S. § 38-711(24) is dependent upon the annual actuarial valuation of the ASRS assets and liabilities.

Under A.R.S. §§ 38-736 and 38-737, employers and members are required to contribute annually a percent of compensation to fund the ASRS plan. The contribution rate for each plan year is based on the results of the annual actuarial valuation.

To conduct an actuarial valuation, the Board and its actuary must analyze various components of the plan and forecast their level of activity and characteristics. Those components are: value of assets, investment yield, mortality, disability, withdrawal, salary, retirement age, future increases in benefits, future retirees eligible for health insurance premium supplement, and proportion of vested terminated members who will not withdraw their contributions. The anticipated activity or characteristics of these components, as they relate to actuarial valuations, are the actuarial assumptions and funding methods.

Under A.R.S. § 38-711(2) actuarial equivalents are based upon mortality and interest rate assumptions.

Notices of Final Rulemaking

The Board and its actuary cannot conduct appropriate actuarial valuations and determine the normal costs, set the appropriate contribution rate, and determine actuarial equivalencies without the Board's adoption of appropriate actuarial assumptions.

A.R.S. § 38-714(G), also requires the Board to contract for a study of the mortality, disability, service, and experience of the employers and employees participating in the ASRS at least every 5th fiscal year.

Pursuant to this requirement, the Board contracted with Watson Wyatt & Company, consulting actuaries, to conduct an actuarial experience study for the 5-year period ending June 30, 1995. Watson Wyatt & Company presented the report of this experience study to the Board on November 15, 1996.

Based upon the results of the 5-year experience study, Watson Wyatt & Company has recommended, as its best judgment on the prospective performance of the ASRS, that the assumptions respecting mortality rates, salary increases, and retirement ages should be adjusted so that the annual actuarial valuations for the plan year that ended June 30, 1996, and for the succeeding plan years until the next 5-year experience study will portray more accurately the actuarial condition of the ASRS.

Concurring with the recommendations of its consulting actuaries, the Board has amended R2-8-123 as follows:

A. Changes in Mortality Rates

The Watson Wyatt & Company Actuarial Experience Study of the Arizona State Retirement System for the 5-year period ending June 30, 1995, showed that the actual deaths for the core group of retired members was not significantly higher than expected (4,004 actual deaths compared to 3,566 expected deaths).

As a result of this experience, the actuaries recommended and the Board concurred that the assumed rate of mortality for post retirement, the 1983 Group Annuity Mortality Table, with margins, set back 1 year for males and with no set back for females, should continue in effect for post retirement and that the same assumption also should be applied to pre-retirement, replacing the existing assumed rate of mortality for pre-retirement, that being the 1983 Group Annuity Mortality Table, with margins, set forward 1 year for males and 3 years for females.

B. Changes in Assumed Retirement Rates

The experience study disclosed 13,600 actual retirements when only 10,700 retirements had been expected during the 5-year period studied. This produced an actual to expected ratio of 127%.

The actuaries recommended a major increase in the retirement rates to produce a new actual to expected ratio of 96.5%.

C. Changes in Assumed Salary Increases

Watson Wyatt & Company analyzed the salary experience for the ASRS for the 5-year period ending June 30, 1995, and subdivided it into 2 components: (1) annual increase due to step-rate/promotional component, and (2) general increase reflecting inflation and productivity increase.

As a result of the experience study, the actuaries recommended that the general salary increase component be reduced from 5.50% to 4.50% per annum. This reflects reduced inflation from 5.00% to 4.25% and reduced productivity from 0.50% to 0.25% to reflect actual experience.

As a result of the experience study, the actuaries also recommended a modification of the step-rate/promotional component of the salary scale to reflect actual experience.

D. Repeal of Assumption on Future Increases in Social Security Benefits

In 1995, the Legislature established a separate long-term disability benefit program. Disability benefits no longer are funded through the ASRS Retirement Plan. Future increases in Social Security benefits, therefore, no longer are relevant to an actuarial valuation of the ASRS Retirement Plan.

7. A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision of this state:

Not applicable.

8. The summary of the economic, small business, and consumer impact:

The proposed rulemaking will not impact small business or consumers. The employer and member contribution rates for the ASRS plan-year that began on July 1, 1996, were 3.20% of compensation. As a result of the earlier emergency rulemaking, which this rulemaking makes permanent, contribution rates for the plan-year beginning July 1, 1997, are 3.05% of compensation for employer and employee members of the ASRS. In the absence of the rulemaking, the employer and member contribution rates for the ASRS plan-year beginning July 1, 1997, would have been 2.98% of compensation.

9. A description of the changes between the proposed rules, including supplemental notices, and final rules (if applicable):

Typographical errors in the proposed rule were corrected in the final rule. Changes were made in the numbering and format of the tables. The final rule does not change substantively the proposed rule. The proposed rule was changed in the final rule as follows:

A. In the text of R2-8-123(1)(b), "setback" was corrected to "set back."

Notices of Final Rulemaking

- B. In the proposed rule, Table 1, Graduated Tabular Rates of Mortality and Disability Active Male Members, was proposed to be repealed. In the final rule, Table 1 was amended to delete the mortality rates. In the final rule, Table 1 is Graduated Tabular Rates of Disability Active Male Members.
- C. In the proposed rule, Table 2, Graduated Tabular Rates of Mortality and Disability Active Female Members, was proposed to be repealed. In the final rule, Table 2 was amended to delete the mortality rates. In the final rule, Table 2 is the Graduated Tabular Rates of Disability Active Female Members.
- D. In the proposed rule, Table 3, Retired Members Mortality Rates, was proposed to be renumbered as Table 1 and to be amended as Non-Disabled Member Mortality Rates. In the final rule, Table 3 was not renumbered, but was amended as Non-Disabled Member Mortality Rates.
- E. In the proposed rule, a new Table 3 was proposed to be adopted as Rates of Decrement Due to Retirement. In the final rule, a new Table 3 was not adopted. However, the rates of decrement due to retirement as proposed in a new Table 3 were adopted in the final rule as a new Table 5, entitled Rates of Decrement Due to Retirement, replacing Table 5, entitled Tabular Rates of Retirement Active Male and Female Members, which was proposed to be repealed and which was repealed in the final rule.
- F. Typographical errors in proposed new Table 3 were corrected in adopted new Table 5 as follows:
 - 1. Rate of decrement at age 63 with 5-9 years of service was corrected from "0.1000" to "0.0100".
 - 2. Rate of decrement at age 56 with 10-14 years of service was corrected from "0.0500" to "0.0550".
 - 3. Rate of decrement at age 52 with 28 years of service was corrected from "0.0938" to "0.1250".
 - 4. Rate of decrement at age 53 with 33 years of service was corrected from "0.750" to "0.0750".
- G. In the proposed rule, Table 4 was proposed to be renumbered as Table 2, Disabled Member Mortality Rates. In the final rule, Table 4 was left unchanged.
- H. In the proposed rule, Table 6, entitled Graduated Tabular Rates of Withdrawal Active Male Members, was proposed to be renumbered as Table 4 with the same title and a new Table 6, entitled Graduated Tabular Rates of Disability, was proposed for adoption. In the final rule, Table 6, entitled Graduated Tabular Rates of Withdrawal Active Male Members, was not renumbered and the proposed new Table 6, entitled Graduated Tabular Rates of Disability, was not adopted. In the final rule, Table 6, entitled Graduated Rates of Withdrawal Active Male Members, was repealed and a new Table 6, entitled Graduated Rates of Withdrawal Active Male Members, was adopted in order to correct numerous typographical errors and omissions for ages 73 and 74 that were discovered in Table 6 during the final review of the rule before final adoption. The errors and omissions have been corrected so that Table 6 will conform to the true male withdrawal rates that the Board intended to adopt.
- I. In the proposed rule, Table 7, entitled Graduated Tabular Rates of Withdrawal Active Female Members, was proposed to be renumbered as Table 5 with the same title. In the final rule, Table 7 was not renumbered. In the final rule, Table 7 was repealed and a new Table 7, entitled Graduated Tabular Rates of Withdrawal Active Female Members, was adopted in order to correct numerous typographical errors and omissions for ages 73 and 74 that were discovered in Table 7 during the final review of the rule before final adoption. The errors and omissions have been corrected so that Table 7 will conform to the true female withdrawal rates that the Board intended to adopt.

10. A summary of the principal comments and the agency response to them:

The agency did not receive any comments on the rule.

11. Any other matters prescribed by statute that are applicable to the specific agency or to any specific rule or class of rules:

Not Applicable.

12. <u>Incorporations by reference and their location in the rule:</u>

None.

13. Was this rule previously adopted as an emergency rule?

Yes.

If so, please indicate the Register citation:

3 A.A.R. 526, February 21, 1997.

The final rule does not change the emergency rule except for the correction of typographical errors in the text of R2-8-123(1)(b) and in tables 5, 6, and 7.

14. The full text of the rules follows:

TITLE 2. ADMINISTRATION

CHAPTER 8. STATE RETIREMENT SYSTEM BOARD

ARTICLE 2. RETIREMENT SYSTEM

Section	
R2-8-123.	Actuarial Assumptions and Actuarial Value of
	Assets
Table 1.	Graduated Tabular Rates of Mortality and Disabil-
	ity - Active Male Members
Table 2.	Graduated Tabular Rates of Mortality and Disabil-
	ity - Active Female Members
Table 3.	Non-Disabled Retired Member Mortality Rates
Table 4.	Disabled Member Mortality Rates
Table 5.	Rates of Decrement Due to Retirement Tabular
	Rates of Retirement Active Male and Female
	Members
Table 6.	Graduated Tabular Rates of Withdrawal - Active
	Male Members
Table 7.	Graduated Tabular Rates of Withdrawal - Active
	Female Members

ARTICLE 2. RETIREMENT SYSTEM

R2-8-123. Actuarial Assumptions and Actuarial Value of Assets

The Board adopts the following for actuarial valuations emmencing with the effective date of this rule as of June 30, 1996, and thereafter:

- 1. Actuarial Assumptions:
 - Interest and Investment Yield Rate--8% per annum, compounded annually.
 - b. Mortality :- +
 - Pre-retirement 1983 Group Annuity Mortality Table with margins, set forward one year for males and three years for females, as provided for mortality in Tables 1 and 2 of this rule.
 - ii. Post-retirement Healthy rates are based on the 1983 Group Annuity Mortality Table with margins, set back 1 year for males and not set back for females as provided in Table 1 3 of this rule. Disabled rates are based on the experience of other large public sector retirement systems through age 82, and healthy mortality rates thereafter, as provided in Table 4 of this rule.
 - c. Retirement Age--Select and ultimate retirement rates at age and years of service shown in Table 5 of this rule.
 - Salary Scales--A select and ultimate salary scale made up of a <u>step-rate/ promotional merit</u> component and general salary increase component as follows:

Years of	Step-Rate/	Total Salary
<u>Service</u>	Promotional	Increase*
	Component	
(1)	(2)	<u>(3)</u>
1	5.00%	9.50%
<u>2</u>	<u>4.00%</u>	<u>8.50%</u>
<u>3</u>	<u>2.50%</u>	<u>7.00%</u>
<u>4</u>	<u>1.80%</u>	<u>6.30%</u>
<u>5</u>	<u>1.40%</u>	<u>5.90%</u>
<u>6</u>	1.25%	<u>5.75%</u>
7	1.00%	5.50%

<u>8</u> <u>0.80%</u> <u>5.30%</u>	
<u>9</u> <u>0.75%</u> <u>5.25%</u>	
<u>10</u> <u>0.50%</u> <u>5.00%</u>	
<u>11 - 19</u> <u>0.25%</u> <u>4.75%</u>	
20 or more 0.00% 4.50%	
*Total salary increase = inflation (or g	ro

*Total salary increase = inflation (or growth)
rate (4.25%) + productivity increase rate
(0.25%) + step-rate/promotional component

Years of	Merit	Total Salary
Service	Component	Increase*
(1)	(2)	(3)
1	3.00%	8.50%
2	2.50%	8.00%
3	2.00%	7.50%
4	1.80%	7.30%
5	1.40%	6.90%
6	1.10%	6.60 %
7	1.00%	6.50%
8	0.80%	6.30%
9	0.60%	6.10%
10	0.50%	6.00%
11 or more	0.00%	5.50 %

*Total salary increase rate inflation (or growth) rate (5%) + productivity increase rate (0.5%) + merit component

- e. Withdrawal Rates (for causes other than death, disability, or retirement)--Select and ultimate withdrawal rates as provided in Table 6 for withdrawal rates for males and Table 7 for withdrawal rates for females.
- f. Disability Rates--Group long-term disability rates based on the Society of Actuaries 1987 Disability Incidence Study (with a six-month elimination period) as provided in Table 1 for male disability rates and Table 2 for female disability rates.
- g. Future Increases in Social Security Benefits For the purpose of projecting disability benefits, Social Security is assumed to increase in the future due to increases in the national average wage index of 5.5% per year, compounded annually, and due to increases in the cost of living of 5% per year, compounded annually.
- g.h. Future Retirees Eligible for the Health Insurance Premium Supplement--75% of future retirees will be eligible to receive the post-retirement health insurance premium supplement and 60% of those retirees will be eligible for the dependent premium supplement.
- h.i. Proportion of Vested Terminated Members Who Will Not Withdraw Their Contributions--25% of members who terminate vested will not withdraw their contributions but instead will receive a retirement benefit upon attaining retirement age.
- Actuarial Value of Assets: The actuarial value of assets is equal to the market value of assets less a 5-year phasein of the Excess (Shortfall) between expected investment return and actual income with the resulting value not being less than 80% or more than 120% of the market value of assets.

TABLE 1. GRADUATED TABULAR RATES OF MORTALITY AND DISABILITY - ACTIVE MALE MEMBERS

1. GRADUATED TA	ABULAR RATES OF MORTALITY	AND DISABILITY - AC
Age	Rate of Mortality	Rate of Disability
(1)	(2)	<u>(2) (3)</u>
18	0.000365	0.000715
19	0.000377	0.000740
20	0.000392	0.000766
21	0.00040 8	0.000783
22	0.000424	0.000800
23	0.000444	0.000817
24	0.000464	0.000833
25	0.000488	0.000851
26	0.000513	0.000869
27	0.000542	0.000890
28	0.000572	0.000914
29	0.000607	0.000941
30	0.000645	0.000973
31	0.000687	0.001009
32	0.00073 4	0.001050
33	0.000785	0.001098
34	0.000860	0.001038
35	0.009907	0.001134
36	0.00966	0.001218
37	0.001039	0.001290
38	0.001128	0.001370
39	0.001238	0.001460
40	0.001230	0.001383
41	0.001577 0.001527	0.001839
42	0.001327 0.001715	0.001839
43	0.001713	0.002020
44	0.001332 0.002183	0.002238
45	0.002103 0.002471	0.002493
46	0.002770	0.002798
47	0.002130	
48	0.00313 0.003513	0.003560 0.004019
49	0.003913	
50	0.004324	0.004535 0.005128
51	0.004755	
52	0.004753 0.005200	0.005818
53	0.005660	0.006620
54	0.005131	0.007541
55		0.008560
56	0.006618 0.007139	0.009644
5.7	* * * * * * * * * * * * * * * * * * * *	0.010759
5.7 58	0.007719	0.011870
59	0.008384	0.012954
60	0.009158	0.014001
61	0.010064	0.014990
62	0.011133	0.015900
63	0.012391	0.016710
64	0.013868	0.017430
	0.015592	0.018034
65 66	0.017579	0.000000
	0.019804	0.000000
67	0.02222 9	0-000000
68	0.024817	0.000000
69	0.027530	0.000000
70	0.030354	0.000000
71	0.033370	0.000000
72	0.036680	, 0.000000

TABLE 2. GRADUATED TABULAR RATES OF MORTALITY AND DISABILITY - ACTIVE FEMALE MEMBERS

		ZOOLDHII - ACI
Age	Rate of Mortality	Rate of Disability
(1)	(2)	<u>(2) (3)</u>
* 0	0.00000	
18	0.000201	0.000965
19	0.000212	0.000972
20	0.000225	0.000978
21	0.000238	0.000987
22	0.000253	0.001000
23	0.00026 8	0.001018
24	0.000283	0.001042
25	0.000301	0.001072
26	0.000320	0.001110
27	0.000342	0.001157
28	0.000364	0.001212
29	0.00 0388	0.001275
30	0.000414	0.001352
31	0.00 0443	0.001444
32	0.000476	0.001554
33	0.000502	0.001688
34	0.000535	0.001881
35	0.000573	0.002004
36	0.000617	0.002004
37	0.000665	0.002163
38	0.000716	
39	0.000775	0.002448
40	0.000773 0.000841	0.002574
41	0.000919	0.002707
42		0.002860
43	0.001010	0.003050
43 44	0.001117	0.003282
	0.001237	0.003553
45	0.001366	0.003867
46	0.001505	0.004225
47	0.001647	0.004628
48	0.001793	0.005071
49	0.001948	0.005553
50	0.002119	0.006081
51	0.002315	0.006657
52	0.002541	0.007282
53	0.002803	0.007954
54	0.003103	0.008656
55	0:003 44 2	0.009362
56	0.003821	0.010047
57	0.004241	0.010683
58	0.004702	0.011251
59	0.005210	0.011738
60	0.005769	0.012126
61	0.006385	0.012397
62	0.007064	0.012532
63	0.007817	0.012532
64	0.008681	0.013532
65	0.009702	0.000000
66	0.010921	
67	0.012385	0.00000
68	0.014128	0.000000
69		0.000000
99 70	0.016159	0.000000
74) 71	0.018481	0.000000
	0.021091	0.00000
72	0.023992	0.00000

TABLE 3. RETIRED NON-DISABLED MEMBER MORTALITY RATES

	IMBLE 5. K	THE HON-DIS	ABLED MEMBE	R MORIALITY RA	TES
Age	Male	Female	Age	Male	Female
(I)	(2)	(3)	(4)	(5)	(6)
			•	, ,	ν-,
20	0.000365	0.000189	66	0.015592	0.007817
21	0.000377	0.000201	67	0.017579	0.008681
22	0.000392	0.000212	68	0.019804	0.009702
23	0.000408	0.000225	69	0.022229	0.010921
24	0.000424	0.000238	70	0.024817	0.012385
25	0.000444	0.000253	71	0.027530	0.014128
26	0.000464	0.000268	72	0.030354	0.016159
27	0.000488	0.000283	73	0.033370	0.018481
28	0.000513	0.000301	74	0.036680	0.021091
29	0.000542	0.000320	75	0.040388	0.023992
30	0.000572	0.000342	76	0.044597	0.027184
31	0.000607	0.000364	77	0.049388	0.027184
32	0.000645	0.000388	78	0.054758	0.034459
33	0.000687	0.000414	79	0.060678	0.034439
34	0.000734	0.000443	80	0.067125	0.038349
35	0.000785	0.000476	81	0.074070	0.042943
36	0.000860	0.000502	82	0.081484	
37	0.000907	0.000535	83	0.089320	0.052691 0.058071
38	0.000966	0.000573	84	0.089320	
39	0.001039	0.000617	85		0.063807
40	0.001128	0.000665	86	0.106047 0.114836	0.069918
41	0.001238	0.000716	87		0.076570
42	0.001370	0.000775	88	0.124170	0.084459
43	0.001577	0.000841	89	0.133870	0.091935
44	0.001715	0.000919	90	0.144073	0.101354
45	0.001713	0.001010	91	0.154859	0.111750
46	0.002183	0.001117	92	0.166307	0.123076
47	0.002471	0.001117		0.178214	0.135630
48	0.002771	0.001237	93 94	0.190460	0.149577
49	0.002750	0.001505		0.203007	0.165103
50	0.003138	0.001647	95	0.217904	0.182419
51	0.003919		96	0.234086	0.201757
52	0.004324	0.001 793 0.001948	97	0.248436	0.222043
53	0.004324	0.001948	98	0.263954	0.243899
54	0.005200		99	0.280803	0.268185
55	0.005200	0.002315 0.002541	100	0.299154	0.295187
56	0.006131	0.002341	101	0.319185	0.325225
57			102	0.341086	0.358897
58	0.006618 0.007139	0.003103 0.003442	103	0.365052	0.395842
59	0.007139		104	0.393102	0.438360
60	0.007719	0.003821	105	0.427255	0.487816
61	0.009158	0.004241 0.004702	106	0.469531	0.545886
62	0.010064		107	0.521945	0.614309
63	0.011133	0.005210	108	0.586518	0.694884
64	0.011133	0.005769	109	0.665268	0.789474
65	0.012391	0.006385	110	1.000000	1.000000
66		0.007064	<u>110</u>	<u>0.760215</u>	<u>0.789474</u>
67	0.012851 0.014100	0.007817			
68	0.014199	0.008681			
69	0.015717	0.009702			
59 70	0.017414	0.010921			
	0.019296	0.012385			
71 72	0.021371	0.014128			
72	0.023647	0.016159			
73	0.026131	0.018481			
74 75	0.028835	0.021091			
73	0.031794	0.023992			

TABLE 4. DISABLED MEMBER MORTALITY RATES

	TAB	LE 4. DISABLED M	TEMBER MORT	ALIIY KAIES	
Age	Male	Female	Age	Male	Female
(1)	(2)	(3)	(4)	(5)	(6)
()					
20	0.069879	0.053877	66	0.061623	0.026840
21	0.069996	0.052371	67	0.061254	0.025983
22	0.070844	0.051719	68	0.061425	0.025358
23	0.072426	0.051921	69	0.061410	0.024949
24	0.074739	0.052977	70	0.067459	0.024778
25	0.077774	0.054887	71	0.074692	0.025103
26	0.081514	0.057649	72	0.081981	0.026205
27	0.085917	0.061249	73	0.088344	0.028186
28	0.090912	0.065656	74	0.093244	0.030948
29	0.096392	0.070808	75	0.096503	0.034921
30	0.102203	0.076604	76	0.098256	0.038087
31	0.108136	0.082892	77	0.098856	0.042217
32	0.113293	0.089460	78	0.098860	0.046540
33	0.119246	0.096034	79	0.098874	0.050814
34	0.123755	0.102284	80	0.098892	0.054859
35	0.127088	0.107853	81	0.099251	0.058639
36	0.128906	0.112409	82	0.100129	0.062150
37	0.128926	0.115626	83	0.108361	0.064523
38	0.126987	0.117135	84	0.117830	0.070897
39	0.123139	0.116642	85	0.127595	0.077687
40	0.117613	0.113967	86	0.137967	0.085078
41	0.110786	0.109054	87	0.148744	0.093189
42	0.103215	0.102042	88	0.160081	0.102150
43	0.095530	0.093478	89	0.172066	0.112616
44	0.088266	0.084216	90	0.184785	0.124167
45	0.081841	0.075172	91	0.198016	0.136751
46	0.076701	0.067198	92	0.211622	0.150700
47	0.073156	0.060788	93	0.225563	0.166197
48	0.071164	0.056136	94	0.242116	0.183448
49	0.070180	0.053121	95	0.260096	0.202688
50	0.069484	0.051392	96	0.276040	0.224174
51	0.068278	0.050436	97	0.293282	0.246715
52	0.066081	0.049707	98	0.312003	0.270999
53	0.062961	0.048730	99	0.332393	0.297983
54	0.062820	0.047328	100	0.354650	0.327986
55	0.062712	0.045671	101	0.378984	0.361361
56	0.062613	0.044033	102	0.405613	0.398774
57	0.062514	0.042368	103	0.436780	0.439825
58	0.062415	0.040421	104	0.474728	0.487067
59	0.062316	0.038255	105	0.521701	0.542018
60	0.062217	0.036058	106	0.579939	0.606540
61	0.062118	0.033981	107	0.651687	0.682566
62	0.062019	0.032048	108	0.739187	0.772094
63	0.061920	0.030396	109	0.844683	0.877193
64	0.061821	0.029038	110	1.000000	1.000000
65	0.061722	0.027868			

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TABLE 5. TABULAR RATES OF RETIREMENT - ACTIVE MALE AND FEMALE MEMBERS

Years of Service

<u>Age</u>	<u>0-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20	21	22	22	24	25
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(2)	(10)	(11)
<u>50</u>	<u>0.000</u>	0.002	<u>0.030</u>	0.030	<u>0:040</u>	<u>0.040</u>	<u>0.040</u>	<u>0.040</u>	<u>0.040</u>	<u>0.050</u>
<u>51</u>	0.000	0.002	0.030	0.030	<u>0.040</u>	<u>0.040</u>	<u>0.040</u>	<u>0.040</u>	<u>0.040</u>	<u>0.050</u>
<u>52</u>	<u>0.000</u>	0.002	0.030	0.030	<u>0.040</u>	<u>0.040</u>	0.040	<u>0.040</u>	<u>0.040</u>	<u>0.050</u>
53	<u>0.000</u>	0.002	<u>0.030</u>	0.030	0.040	0.040	0.040	0.040	<u>0.040</u>	<u>0.050</u>
<u>54</u>	0.000	0.002	0.030	0.030	<u>0.040</u>	0.040	0.040	<u>0.050</u>	<u>0.130</u>	<u>0.120</u>
<u>55</u>	0.000	0.006	<u>0.040</u>	<u>0.035</u>	0.060	<u>0.060</u>	<u>0.060</u>	0.060	<u>0.060</u>	<u>0.130</u>
56	<u>0.000</u>	<u>0.006</u>	<u>0.055</u>	<u>0.040</u>	0.080	<u>0.080</u>	0.080	0.080	0.130	<u>0.120</u>
<u>57</u>	0.000	0.006	0.070	<u>0.050</u>	<u>0.100</u>	0.100	<u>0.100</u>	0.180	0.150	<u>9.150</u>
<u>58</u>	<u>0.00</u> 0	<u>0.006</u>	<u>0.075</u>	<u>0.080</u>	<u>0.130</u>	<u>0.130</u>	0.189	<u>0.160</u>	<u>0.160</u>	<u>0.160</u>
52	<u>0.000</u>	0.006	0.080	<u>0.090</u>	<u>0.160</u>	0.180	0.170	0.170	<u>0.170</u>	<u>0.170</u>
<u>60</u>	0.000	0.040	<u>0.090</u>	<u>0.110</u>	0.210	<u>0.190</u>	<u>0.190</u>	<u>0.190</u>	0.190	<u>0.200</u>
<u>61</u>	<u>0.000</u>	0.040	<u>0.140</u>	<u>0.150</u>	<u>0.190</u>	<u>0.190</u>	<u>0.190</u>	<u>0.190</u>	0.320	<u>0.240</u>
<u>62</u>	<u>0.000</u>	0.040	<u>0.290</u>	<u>0.290</u>	<u>0.370</u>	<u>0.370</u>	0.370	0.370	0.370	<u>0.390</u>
<u>63</u>	0.000	<u>0.100</u>	<u>0.400</u>	<u>0:400</u>	<u>0.450</u>	0.450	<u>0.450</u>	<u>0.450</u>	0.450	<u>0.480</u>
<u>64</u>	<u>0.000</u>	0.050	<u>0.430</u>	<u>0.430</u>	<u>0.480</u>	<u>0.480</u>	0.480	0.480	<u>0.480</u>	<u>0.500</u>
<u>65</u>	<u>0.025</u>	<u>0.050</u>	<u>0.500</u>	<u>0.500</u>	<u>0.500</u>	<u>0.500</u>	<u>0.500</u>	<u>0.500</u>	0.500	<u>0.550</u>
<u>66</u>	0.025	0.100	<u>0.500</u>	<u>0.500</u>	<u>0.550</u>	<u>0.550</u>	0.550	<u>0.550</u>	<u>0.550</u>	<u>0.550</u>

Age	26	27	28	<u>29</u>	30	31	<u>32</u>	<u>33</u>	34	35 +
(1)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
<u>50</u>	<u>0.050</u>	0.050	0.050	<u>0.050</u>	<u>0.080</u>	<u>0.060</u>	<u>0.065</u>	0.075	<u>0.100</u>	<u>0.060</u>
<u>₹1</u>	<u>0.050</u>	<u>0.050</u>	<u>0.050</u>	0.080	0.075	<u>0.080</u>	0.085	<u>0.100</u>	0.110	0.060
<u>52</u>	0.050	0.050	0.100	0.075	0.080	0.085	0.100	0.110	0.060	<u>0.060</u>
<u>53</u>	0.050	0.130	0.100	0.090	0.090	0.090	<u>0.100</u>	0.060	<u>0.060</u>	0.075
<u>54</u>	0.100	0.120	<u>0.100</u>	<u>0.110</u>	0.110	<u>0.110</u>	0.100	0.100	0.100	0.100
<u>55</u>	0.120	0.110	<u>0.110</u>	0.120	<u>0.150</u>	<u>0.100</u>	0.100	0.100	0.100	<u>0.100</u>
<u>56</u>	0.120	0.120	0.120	0.120	<u>0.120</u>	0.120	<u>0.120</u>	<u>0.120</u>	0.120	<u>0.120</u>
<u>57</u>	<u>0.150</u>	<u>0.150</u>	<u>0.150</u>	0.140	<u>0.140</u>	<u>0.140</u>	0.140	0.140	0.140	<u>0.140</u>
<u>58</u>	<u>0-160</u>	<u>0.160</u>	<u>0.170</u>	<u>-0.170</u>	<u>0.170</u>	<u>0.170</u>	<u>0.170</u>	0.170	0.170	<u>0.170</u>
<u>59</u>	<u>0.170</u>	<u>9.170</u>	<u>9.170</u>	<u>0.170</u>	<u>0.200</u>	0.200	0.200	0.200	<u>0.200</u>	<u>0.200</u>
<u>60</u>	<u>0.200</u>	<u>0.200</u>	0.200	0.200	<u>0.240</u>	0.240	0.240	0.240	<u>0.240</u>	<u>0.240</u>
<u>61</u>	<u>0.240</u>	0.240	<u>0.240</u>	<u>0.240</u>	0.250	0.250	0.250	<u>0.250</u>	0.250	<u>0.250</u>
62	<u>0.390</u>	<u>0.390</u>	<u>0.390</u>	0.390	<u>0.450</u>	<u>0.450</u>	<u>0.450</u>	<u>0.450</u>	<u>0.450</u>	<u>0.450</u>
63	<u>0.480</u>	<u>0.480</u>	<u>0.480</u>	<u>0.480</u>	<u>0.500</u>	<u>0.500</u>	<u>0.500</u>	0.500	<u>0.500</u>	<u>0.500</u>
<u>64</u>	<u>0.500</u>	0.500	0.500	<u>0.500</u>	<u>0.500</u>	0.500	0.500	0.500	<u>0.500</u>	<u>0.500</u>
<u>65</u>	<u>0.550</u>	<u>0.550</u>	<u>0.550</u>	<u>0.550</u>	<u>0.550</u>	<u>0.550</u>	<u>0.550</u>	<u>0.550</u>	<u>0.550</u>	<u>0.550</u>
<u>66</u>	<u>0.550</u>	<u>0.550</u>	<u>0.550</u>	<u>0.550</u>	<u>0.550</u>	<u>0.550</u>	0.550	0.550	<u>0.550</u>	<u>0.550</u>

Notices of Final Rulemaking

TABLE 5. RATES OF DECREMENT DUR TO RETIREMENT

Years of Service

Age 50 & Under 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65	0-4 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	5-9 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500	10-14 0.0500 0.0500 0.0500 0.0500 0.0500 0.0550 0.0750 0.0750 0.0750 0.0800 0.0900 0.1400 0.3400 0.4500 0.4800 0.5500	15 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0800 0.0900 0.1100 0.1500 0.3400 0.4500 0.4800 0.5500	16 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0800 0.0900 0.1100 0.1875 0.3400 0.4500 0.4800 0.5500	17 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0800 0.0900 0.1375 0.1875 0.3400 0.4500 0.4800 0.5500	18 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.1125 0.1375 0.1875 0.3400 0.4500 0.4800 0.5500	19 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.0500 0.1000 0.1125 0.1375 0.1875 0.3400 0.4500 0.4800 0.5500	20 0.0500 0.0500 0.0500 0.0500 0.0500 0.0600 0.1250 0.1625 0.2000 0.2625 0.2375 0.4200 0.5000 0.5300	21 0.0500 0.0500 0.0500 0.0500 0.0600 0.1000 0.1250 0.2250 0.2375 0.2375 0.4200 0.5000 0.5300 0.5300
	0.0250 0.0250	0.0500 0.1000	0.5500 0.5500	0.5500 0.5500	0.5500 0.5500	0.5500 0.5500	0.5500 0.5500	0.5500 0.5500	0.5500 0.6000	0.5500 0.6000

Years of Service

Age	22	23	<u>24</u>	<u>25</u>	<u>26</u>	27	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>
50 & Under	0.0500	0.0500	0.0500	0.0500	0.0500	0.0625	0.0625	0.0625	0.1000	0.0750
<u>50 to Ongo,</u> <u>51</u>	0.0500	0.0500	0.0500	0.0500	0.0625	0.0625	0.0625	0.1000	0.0938	0.1000
<u>52</u>	0.0500	0.0500	0.0500	0.0625	0.0625	0.0625	0.1250	0.0938	0.1000	0.1062
<u>53</u>	0.0500	0.0500	0.0500	0.0625	0.0625	0.1625	0.1250	0.1125	0.1125	0.1125
<u>54</u>	0.0500	0.0500	0.0500	0.0625	0.1625	0.1500	0.1250	0.1375	<u>0.1375</u>	0.1375
<u>55</u>	0.0750	0.0750	0.0750	0.1625	0.1500	0.1500	0.1375	0.1500	0.1875	0.1250
<u>56</u>	0.1000	0.1000	0.1625	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500
<u>57</u>	0.1250	0.2250	0.1875	0.1875	0.1875	0.1875	0.1875	0.1750	0.1750	<u>0.1750</u>
<u>58</u>	0.2250	0.2000	0.2000	0.2000	0.2000	0.2000	0.2125	<u>0.2125</u>	0.2125	0.2125
<u>59</u>	0.2125	0.2125	0.2125	0.2125	0.2125	0.2125	0.2125	0.2125	0.2500	0.2500
<u>60</u>	0.2375	0.2375	0.2375	0.2500	0.2500	0.2500	0.2500	0.2500	<u>0.3000</u>	<u>0.3000</u>
<u>61</u>	0.2375	0.2375	0.4000	0.3000	0.3000	0.3000	0.3000	<u>0.3000</u>	<u>0.3125</u>	0.3125
<u>62</u>	0.4200	0.4200	0.4200	0.4400	0.4400	0.4400	0.4400	0.4400	0.5000	0.5000
<u>63</u>	0.5000	0.5000	0.5000	0.5300	0.5300	0.5300	0.5300	0.5300	<u>0.5500</u>	<u>0.5500</u>
<u>64</u>	0.5300	0.5300	0.5300	0.5500	0.5500	0.5500	0.5500	0.5500	0.5500	<u>0.5500</u>
65	0.5500	0.5500	0.5500	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000
66 & Older	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000

Age	<u>32</u>	33	34	35 or more
50 & Under	0.0812	<u>0.0938</u>	<u>0.1250</u>	0.1250
<u>51</u>	0.1062	0.1250	<u>0.1375</u>	0.1375
52	0.1250	0.1375	0.0750	<u>0.0750</u>
<u>53</u>	0.1250	0.0750	0.0750	0.0750
54	0.1250	0.1250	0.1250	<u>0.1250</u>
<u>55</u>	0.1250	0.1250	0.1250	0.1250
<u>56</u>	0.1500	0.1500	0.1500	<u>0.1500</u>
<u>57</u>	0.1750	0.1750	0.1750	0.1750
58	0.2125	0.2125	0.2125	0.2125
59	0.2500	0.2500	0.2500	0.2500
60	0.3000	0.3000	0.3000	0.3000
61	0.3125	0.3125	0.3125	0.3125
62	0.5000	0.5000	0.5000	0.5000
63	0.5500	0.5500	0.5500	<u>0.5500</u>
64	0.5500	0.5500	0.5500	<u>0.5500</u>
65	0.6000	0.6000	0.6000	0.6000
66 & Older	0.6000	0.6000	0.6000	0.6000

Notices of Final Rulemaking

TABLE 6. GRADUATED TABULAR RATES OF WITHDRAWAL - ACTIVE MALE MEMBERS

Age	Ð	1	2	3	4	-5	6	7	8	9	10+
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
18	0.3888	0.3797	0.3087	0.2632	0.1680	0.1413	0.093	0.086	0.073	0.079	0.1365
19	0.3809	0.3719	0.2991	0.2588	0.1644	0.1380	0.092	0.085	0.072	0.077	0.1321
20	0.3731	0.3642	0.2896	0.2545	0.1508	0.1364	0.091	0:084	0.071	0.077	0.1277
21	0.3573	0.3487	0.2703	0.2468	0.1436	0.1316	0.088	0.082	0.068	0.073	0.1189
22	0.3412	0.3324	0.2531	0.2365	0.1367	0.1268	0.086	0.082	0.066	0.079	0.1104
23	0.3250	0.3154	0.2376	0.2265	0.1307	0.1222	0.084	0.079	0.064	0.067	0.1024
24	0.3088	0.2981	0.2237	0.2162	0.1237	0.1178	0.082	0.077	0.062	0.064	0.0947
25	0.2930	0.2809	0.2111	0.2057	0.1177	0.1176	0.080	0.076	0.060	0.062	0.0874
26	0.2776	0.2638	0.1999	0.1949	0.1119	0.1094	0.078	0.074	0.068	0.059	
27	0.2628	0.2471	0.1897	0.1842	0.1064	0.1054	0.077	0.072	0.056	0.057	0.0804
28	0.2491	0.2315	0.1802	0.1738	0.1012	0.1016	0.076	0.071	0.054	0.055	0.0739
29	0.2369	0.2175	0.1708	0.1639	0.0963	0-0978	0.073	0.069	0.053	0.053	0.0677
30	0.2267	0.2055	0.1612	0.1647	0.0917	0.0043	0.073	0.068			0.0619
31	0.2187	0.1960	0.1509	0.1466	0.0874	0.0909	0.060	0.066	0.051	0.061	0:0565
32	0.2128	0.1887	0.1403	0.1392	0.0834	0.0876	0.067	0.066	0.049 0.048	0.049	0.0514
33	0.2083	0.1832	0.1301	0.1326	0.0796	0.0846	0.066	0.063		0.047	0.0467
34	0.2050	0.1792	0.1210	0.1267	0.0750 0.0762	0.0816	0.064		0.047	0.046	0.0424
35	0.2021	0.1760	0.1137	0.1214	0.0729	0.0787	0.062	0.062 0.061	0.046 0.044	0.044	0:0385
36	0.1996	0.1736	0.1087	0.1165	0.0699	0.0760	0.061	0.059		0.043	0.0349
37	0.1974	0.1719	0.1055	0.1121	0.0672	0.0734	0.059	0.058	0.043	0.042	0.0318
38	0.1066	0.1718	0.1036	0.1082	0.0646	0.0734	0.068	0.057	0.042	0.041	0.0290
39	0.1942	0.1702	0.1023	0.1032	0.0623	0.0687	0.055		0.041	0.040	0.0266
40	0.1931	0.1698	0.1011	0.1015	0.0601	0.0666	0.056	0.040 0.054	0.040	0.039	0.0245
41	0.1924	0.1695	0.0996	0.0985	0.0580	0.0644	0.063	0.054 0.053	0.040	0.038	0.0227
42	0.1919	0.1693	0.0982	0.0958	0.0562				0.039	0.037	0.0213
4 3	0.1016	0.1691	0.0967	0.0934	0.0502 0.0644	0.0624	0.061	0.062	0.038	0.036	0.0201
45 44	0.1010	0.1690	0.0954			0.0606	0.060	0.061	0.037	0.036	0.0192
4 5	0.1909	0.1692	0.0934	0.0912 0.0893	0.0529	0.0588	0.040	0.040	0.036	0.035	0.0185
4 6	0.1007	0.1698	0.0937	0.0878	0.0516 0.0503	0.0672 0.0559	0.048 0.047	0.047	0.036	0.035	0.0179
4 7	0.1007 0.1906	0.1705	0.0932	0.0866	0.0303 0.0492			0.046	0.036	0.034	0.0174
48	0.1903	0.1710	0.0927	0.0863	0.0482	0.0549	0.047	0.042	0.035	0.034	0.0169
40	0.1809	0.1707	0.0918	0.0830	0.0471	0.0537 0.0622	0.048 0.047	0 .030	0.035	0.033	0.0166
50	0.1892	0.1692	0.0904	0.0820	0.0471	0.0602	0:047 0:04B	0.037	0.036	0.032	0.0161
50 51	0.1881	0.1660	0.0882	0.0706	0.0444 0.0441	0.0476	0.048 0.044	0.036	0.034	0.031	0.0155
52	0.1867	0.1618	0.0854	0.0766	0.0422	0.0478 0.0443	0:044 0:041	0.034 0.033	0.033	0.030	0.0147
52 53	0.1860	0.1676	0.0820	0.0730	0.0422	0.0443	0.038		0.031	0.020	0.0138
55 54	0.1863	0.1647	0.0811	0.0719	0.0302	0.0381	0.036	0.033	0.020 0.028	0.027	0.0128
55	0.1887	0.1543	0.0807	0.0713	0.0386	0.0361	0.034	0.033 0.034	0.027	0.026 0.025	0.0120
56	0.1036	0.1572	0.0821	0.0724	0.0392	0.0362	0.033				0.0113
	0.2003	0.1625	0.0860	0.0749	0.0406	0.0362	0.032	0.034 0.033	0.026 0.026	0.024 0.02 4	0.0109
58	0.2080	0.1693	0.0887	0.0781	0.0422	0.0368	0.032	0.033	0.026	0.024	0.0107
59	0.2166	0.1763	0.0927	0.0781	0.0422	0.0366	0.033	0.033	0.026	0.024	0.0107
60	0.2210	0.1824	0.0963	0.0848	0.0446	0.0371	0.033	0.033	0.026	0.024	0.0107
61	0.2266	0.1869	0.0993	0.0874	0.0442	0.0373	0.034	0.033	0.025	0.024	0.0108
62	0.2301	0.1006	0.1018	0.0874	0.0433	0.0373	0.034	0.033	0.026		0.0100
63	0.2328	0.1037	0.1013	0.0017	0.0423	0.0374	0.034	0.032	0.024	0.024 0.023	0.0110
6 4	0.2366	0.1969	0.1049	0.0942	0.0423	0.0380	0.036	0.032	0.024	0.023	0.0113 0.0117
65	0.2386	0.2008	0.1101	0.0976	0.0426	0.0303	0.036	0.032	0.023	0.023	0.0123
66	0.2424	0.2056	0.1130	0.1017	0.0440	0.0416	0.035	0.032	0.023	0.022	0.0123 0.0132
67	0.2467	0.2109	0.1182	0.1017 0.1066	0.0444	0.0415	0.036	0.032	0.023	0.022	
68	0.2612	0.2166	0.1227	0.1120	0.0627	0.0470	0.036	0.031	0.022	0.021	0.0143
69	0.2568	0.2226	0.1274	0.1126	0.0572	0.0514	0.036	0.031	0.022	0.021	0.0155
70	0.2604	0.2282	0.1320	0.1220	0.0572	0.0514	0.036	0.031	0.022	0.020	0:0167 0:0180
71 71	0.2626	0.2311	0.1342	0.1267	0.0638	0.0567	0.037	0.031	0.022 0.021	0.020 0.020	0.0186
72	0.2649	0.2340	0.1345	0.1284	0.0661	0.0584	0.037	0.031	0.021	0.020	0.0186 0.0192
	·	·	J	V. 1.40 T	V.VVVX	0.0507	0.027	V.OST	O:OET	0.020	0.019 2

Notices of Final Rulemaking

TABLE 6. GRADUATED TABULAR RATES OF WITHDRAWAL - ACTIVE MALE MEMBERS

MALE WITHDRAWAL RATES

				-8-30		···					
Age	Q	1	2	<u>3</u>	4	_5	<u>6</u>	7	<u>8</u>	9	<u>10+</u>
<u>15</u>	0.3888	0.3797	0.3087	0.2632	0.1580	0.1413	0.0931	0.0860	0.0735	0.0794	0.1365
<u>16</u>	0.3888	0.3797	0.3087	0.2632	0.1580	0.1413	0.0931	0.0860	0.0735	0.0794	0.1365
<u>17</u>	0.3888	0.3797	0.3087	0.2632	0.1580	0.1413	0.0931	0.0860	0.0735	0.0794	0.1365
18	0.3888	0.3797	0.3087	0.2632	0.1580	0.1413	0.0931	0.0860	0.0735	0.0794	0.1365
<u>19</u>	0.3809	0.3719	0.2991	0.2588	0.1544	0.1389	0.0920	0.0851	0.0723	0.0778	0.1321
<u>20</u>	0.3731	0.3642	0.2895	0.2545	0.1508	0.1364	0.0910	0.0843	0.0711	0.0763	0.1277
<u>21</u>	0.3573	0.3487	0.2703	0.2458	0.1436	0.1316	0.0889	0.0825	0.0688	0.0733	0.1189
<u>21</u> 22	0.3412	0.3324	0.2531	0.2365	0.1367	0.1268	0.0868	0.0808	0.0665	0.0704	0.1104
<u>22</u> <u>23</u>	0.3250	0.3154	0.2376	0.2265	0.1300	0.1222	0.0848	0.0791	0.0643	0.0676	0.1024
	0.3088	0.2981	0.2237	0.2162	0.1237	0.1178	0.0828	0.0775	0.0622	0.0649	0.0947
<u>24</u>	0.2930	0.2809	0.2111	0.2057	0.1177	0.1176	0.0808	0.0759	0.0602	0.0624	0.0874
<u>25</u>	0.2776		0.1999	0.1949	0.1119	0.1094	0.0789	0.0743	0.0582	0.0599	0.0804
<u>26</u>		0.2638		0.1842	0.1064	0.1054	0.0770	0.0728	0.0564	0.0576	0.0739
<u>27</u>	0.2628	0.2471	0.1897	0.1042	0.1004	0.1015	0.0751	0.0728	0.0547	0.0554	0.0739
<u>28</u>	0.2491	0.2315	0.1802			***************************************		0.0697	0.0547	0.0533	***************************************
<u>29</u>	0.2369	0.2175	0.1708	0.1639	0.0963	0.0978	0.0733				0.0619
<u>30</u>	0.2267	0.2055	0.1612	0.1547	0.0917	0.0943	0.0714	0.0682	0.0514	0.0514	0.0565
<u>31</u>	0.2187	0.1960	0.1509	0.1465	0.0874	0.0909	0.0696	0.0668	0.0499	0.0495	0.0514
<u>32</u>	0.2128	0.1887	<u>0.1403</u>	0.1392	0.0834	0.0876	0.0679	0.0653	0.0485	0.0478	0.0467
<u>33</u>	0.2083	<u>0.1832</u>	0.1301	0.1326	0.0796	0.0845	0.0661	0.0639	0.0472	0.0462	0.0424
<u>34</u>	0.2050	<u>0.1792</u>	0.1210	<u>0.1267</u>	0.0762	0.0815	0.0645	0.0625	0.0460	0.0447	0.0385
35	<u>0.2021</u>	0.1760	<u>0.1137</u>	0.1214	0.0729	0.0787	0.0628	0.0611	0.0448	0.0434	0.0349
<u>36</u>	<u>0.1996</u>	<u>0.1736</u>	<u>0.1087</u>	<u>0.1165</u>	0.0699	0.0760	0.0612	<u>0.0597</u>	0.0438	0.0421	0.0318
<u>37</u>	<u>0.1974</u>	0.1719	<u>0.1055</u>	0.1121	0.0672	0.0734	<u>0.0596</u>	0.0584	0.0427	0.0410	0.0290
<u>38</u>	<u>0.1956</u>	0.1708	0.1036	0.1082	0.0646	0.0710	0.0581	0.0571	0.0418	0.0400	0.0266
<u>39</u>	0.1942	0.1702	0.1023	0.1047	0.0623	0.0687	0.0566	<u>0.0558</u>	0.0409	0.0391	0.0245
<u>40</u>	0.1931	0.1698	0.1011	0.1015	0.0601	0.0665	0.0551	<u>0.0546</u>	0.0400	0.0383	<u>0.0227</u>
41	0.1924	<u>0.1695</u>	0.0996	0.0985	0.0580	0.0644	0.0535	0.0534	0.0392	0.0376	0.0213
<u>42</u>	0.1919	<u>0.1693</u>	0.0982	0.0958	0.0562	0.0624	0.0519	0.0523	0.0383	<u>0.0369</u>	0.0201
<u>43</u>	<u>0.1915</u>	<u>0.1691</u>	<u>0.0967</u>	<u>0.0934</u>	0.0544	<u>0.0605</u>	0.0504	<u>0.0511</u>	<u>0.0375</u>	<u>0.0362</u>	0.0192
<u>44</u>	0.1912	<u>0.1690</u>	0.0954	0.0912	<u>0.0529</u>	<u>0.0588</u>	0.0491	0.0496	0.0368	<u>0.0356</u>	0.0185
<u>45</u>	0.1909	<u>0.1692</u>	0.0944	0.0893	<u>0.0515</u>	0.0572	0.0482	0.0477	0.0363	<u>0.0350</u>	0.0179
<u>46</u>	0.1907	<u>0.1698</u>	0.0937	0.0878	0.0503	<u>0.0559</u>	0.0479	<u>0.0453</u>	<u>0.0359</u>	<u>0.0345</u>	0.0174
47	0.1905	0.1705	0.0932	0.0866	0.0492	<u>0.0549</u>	0.0479	<u>0.0424</u>	0.0358	0.0341	0.0169
<u>48</u>	0.1903	0.1710	0.0927	0.0853	0.0482	0.0537	0.0480	0.0396	0.0356	0.0335	0.0165
<u>49</u>	0.1899	0.1707	0.0918	0.0839	0.0471	0.0522	0.0476	0.0370	0.0352	0.0328	0.0161
<u>50</u>	0.1892	0.1692	0.0904	0.0820	0.0458	0.0502	0.0466	0.0351	<u>0.0345</u>	0.0319	0.0155
<u>51</u>	0.1881	0.1660	0.0882	0.0795	0.0441	0.0475	0.0446	0.0340	0.0332	0.0306	0.0147
<u>52</u>	<u>0.1867</u>	0.1618	0.0854	0.0766	0.0422	0.0443	0.0418	0.0336	0.0316	0.0291	0.0138
<u>53</u>	0.1859	0.1576	0.0829	0.0739	0.0405	0.0410	0.0389	<u>0.0336</u>	0.0299	0.0276	0.0128
<u>54</u>	0.1863	0.1547	0.0811	0.0719	0.0392	0.0381	<u>0.0361</u>	0.0339	0.0284	0.0263	0.0120
<u>55</u>	0.1887	0.1543	0.0807	0.0713	0.0386	<u>0.0361</u>	0.0341	0.0340	0.0272	0.0252	0.0113
<u>56</u>	0.1935	0.1572	0.0821	0.0724	0.0392	0.0352	0.0331	0.0340	0.0266	0.0247	<u>0.0109</u>
<u>57</u>	0.2003	0.1625	0.0850	0.0749	0.0406	0.0352	0.0328	0.0339	0.0263	0.0245	0.0107
58	0.2080	0.1693	0.0887	0.0781	0.0422	0.0358	0.0330	0.0337	0.0263	0.0245	0.0107
<u>59</u>	0.2155	0.1763	0.0927	0.0817	0.0437	0.0365	0.0335	0.0335	0.0263	0.0246	0.0107
<u>60</u>	0.2219	0.1824	0.0963	0.0848	0.0445	0.0371	0.0339	0.0333	0.0261	0.0246	0.0108
61	0.2266	0.1869	0.0993	0.0874	0.0442	0.0373	0.0342	0.0331	0.0258	0.0243	0.0109
62	0.2301	0.1905	0.1018	0.0895	0.0433	0.0373	0.0345	0.0330	0.0253	0.0240	0.0110
<u>63</u>	0.2328	0.1937	0.1043	0.0917	0.0423	0.0374	0.0348	0.0328	0.0248	0.0235	0.0113
64	0.2355	0.1969	0.1069	0.0942	0.0418	0.0380	0.0350	0.0326	0.0242	0.0230	0.0117
<u>65</u>	0.2386	0.2008	0.1101	0.0975	0.0426	0.0393	0.0353	0.0324	0.0237	0.0226	0.0123
<u>66</u>	0.2424	0.2056	0.1139	0.1017	0.0449	0.0415	0.0357	0.0322	0.0233	0.0221	0.0132
<u>67</u>	0.2467	0.2109	0.1182	0.1066	0.0484	0.0445	0.0360	0.0320	0.0230	0.0217	0.0143
<u>68</u>	0.2512	0.2166	0.1227	0.1120	0.0527	0.0479	0.0363	0.0318	0.0227	0.0213	0.0155
<u>69</u>	0.2558	0.2225	0.1274	0.1175	0.0572	0.0514	0.0366	0.0315	0.0223	0.0208	0.0167
<u>70</u>	0.2604	0.2282	0.1320	0.1229	0.0616	0.0549	0.0369	0.0313	0.0220	0.0204	0.0180
70 71	0.2626	0.2311	0.1342	0.1257	0.0638	0.0567	0.0371	0.0312	0.0219	0.0202	0.0186
<u>71</u> 72	0.2649	0.2340	0.1365	0.1284	0.0661	0.0584	0.0373	0.0311	0.0217	0.0200	0.0192
<u>72</u> <u>73</u>	0.2672	0.2369	0.1388	0.1311	0.0684	0.0601	0.0375	0.0310	0.0217	0.0198	0.0198
13 74	0.2672 0.2672	0.2369	0.1388	0.1311	0.0684	0.0601	0.0375	0.0310	0.0215	0.0128	0.0198
73	0.4014	<u>0,2009</u>	0.1700	خشششنك	9.0004	5.0001	**************************************	2:2:4	*******	xxxxxx	2.25.20

TABLE 7. GRADUATED TABULAR RATES OF WITHDRAWAL - ACTIVE FEMALE MEMBERS

Age	θ	‡	2	3	4	5	6	7	8	9	10+
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
18	0.3324	0.3249	0.2787	0.2761	0.2244	0.2216	0.1785	0.1486	0.1467	0.1356	0.2326
19	0.3220	0.3151	0.2714	0.2678	0.2172	0.2146	0.1733	0.1445	0.1419	0.1320	0.2237
20	0.3116	0.3053	0.2640	0.2596	0.2101	0.2077	0.1680	0.1405	0.1380	0.1285	0.2148
21	0.2908	0.2858	0.2492	0.2432	0.1958	0.1937	0.1575	0.1323	0.1303	0.1215	0.1970
22	0.2726	0.2686	0.2358	0.2281	0.1826	0.1808	0.1479	0.1248	0.1231	0.1150	0.1804
23	0.2569	0.2536	0.2237	0.2143	0.1705	0.1690	0.1389	0.1179	0.1166	0.1089	0.1648
24	0.2434	0.2405	0.2127	0.2017	0.1593	0.1580	0.1307	0.1114	0.1104	0.1033	0.1503
25	0.2321	0.2293	0.2027	0.1902	0.1491	0.1480	0.1231	0.1055	0.1047	0.0980	0.1368
26	0.2227	0.2197	0.1937	0.1796	0.1397	0.1388	0.1161	0.1000	0.0994	0.0931	0.1242
27	0.2149	0.2116	0.1856	0.1700	0.1311	0.1304	0.1097	0.0949	0.0945	0.0886	0.1126
28	0.2088	0.2048	0.1782	0.1612	0.1233	0.1226	0.1037	0.0901	0.0898	0.0842	0.1017
29	0.2044	0.1989	0.1714	0.1531	0.1161	0.1155	0.0982	0.0856	0.0854	0.0801	0.0916
30	0.2015	0.1937	0.1652	0.1456	0.1094	0.1089	0.0930	0.0813	0.0811	0.0760	0.0821
31	0.2003	0.1892	0.1593	0.1385	0.1032	0.1027	0.0880	0.0772	0.0770	0.0721	0.0731
32	0.2003	0.1851	0.1539	0.1320	0.0974	0.0969	0.0833	0.0732	0.0730	0.0682	0.0647
33	0.2007	0.1815	0.1487	0.1258	0.0921	0.0916	0.0789	0.0694	0.0691	0.0645	0.0569
3 4	0,2003	0.1785	0.1438	0.1201	0.0873	0.0867	0.0748	0.0658	0.0653	0.0608	0.0498
35	0.1984	0.1762	0.1390	0.1147	0.0829	0.0823	0.0710	0.0624	0.0617	0.0573	0.0436
36	0.1943	0.1745	0.1344	0.1097	0.0789	0.0783	0.0675	0.0591	0.0582	0.0639	0.0382
37	0.1885	0.1732	0.1298	0.1050	0.0753	0.0747	0.0643	0.0561	0.0549	0.0506	0.0335
38	0.1821	0.1722	0.1255	0.1006	0.072 I	0.0714	0.0613	0.0532	0.0518	0.0475	0.0296
39	0.1762	0.1709	0.1213	0.0966	0.0692	0.0686	0.0587	0.0506	0.0488	0.0445	0.0264
40	0.1720	0.1693	0.1174	0.0930	0.0666	0.0661	0.0563	0.0482	0:0461	0.0417	0.0239
41	0.1701	0.1671	0.1138	0.0897	0.0644	0.0639	0.0543	0.0461	0.0437	0.0391	0.0220
42	0.1699	0.1644	0.1105	0:0868	0.0625	0.0620	0.0524	0.0441	0.0414	0.0367	0.0208
43	0.1707	0.1614	0.1074	0.0842	0.060 8	0.0603	0.0508	0.0424	0.0393	0.0345	0.0199
44	0.1718	0.1584	0.1046	0.0818	0.0593	0.0589	0.0494	0.0408	0.0374	0.0324	0.0194
4 5	0.1725	0.1557	0.1020	0.0797	0.0579	0.0575	0.0480	0.0394	0.0356	0.0305	0.0189
46	0.1726	0.1532	0.0996	0.0778	0.0667	0.0563	0.0468	0.0380	0.0340	0.0287	0.0185
47	0.1723	0.1510	0.0975	0.0761	0.0556	0.0552	0.0456	0.0367	0.0325	0.0270	0.0181
48	0.1717	0.1490	0.0957	0.0746	0.0546	0.0541	0.0445	0.0366	0.0311	0.0254	0.0177
49	0.170 8	0.1472	0.0941	0.0733	0.0536	0.0531	0.0435	0.0345	0.0298	0.0240	0.0173
50	0.1698	0.1457	0.0927	0.0722	0.0528	0.0522	0.0426	0.0335	0.0287	0.0227	0.0167
51	0.168 4	0.1443	0.0917	0.0713	0.0521	0.0553	0.0417	0.0326	0.0277	0.0216	0.0160
52	0.1669	0.1431	0.0909	0.0707	0.0515	0.0505	0.0408	0.0317	0.0268	0.0206	0.0152
53	0.1656	0.1422	0.0904	0.0702	0.0510	0.0497	0.0399	0.0309	0.0260	0.0197	0.0143
5 4	0.1650	0.1416	0.0901	0.0700	0.0606	0.0490	0.0391	0.0302	0.0263	0.0191	0.0134
55	0.1655	0.1412	0.0901	0.0700	0.0503	0.0484	0.0384	0.0296	0.0248	0.0186	0.0125
56	0.1674	0.1410	0.0903	0.0702	0.0501	0.0478	0.0377	0.0290	0.0243	0.0183	0.0116
57	0.1704	0.1412	0.0908	0.0706	0.0501	0.0474	0.0371	0.0286	0.0240	0.0182	0.0107
5 8	0.1739	0.1416	0.0916	0.0712	0.0502	0.0470	0.0366	0.0281	0.0237	0.0182	0.0100
5 9	0.1775	0.1422	0.0926	0.0720	0.0504	0.0468	0.0361	0.0278	0.0236	0.0185	0.0093
60	0.1805	0.1432	0.0939	0-0731	0.0508	0.0466	0.0357	0.0275	0.0237	0.0190	8800.0
61	0.1827	0.1443	0:0954	0.0743	0.0513	0.0465	0.0354	0.0273	0.0238	0.0197	0.0085
62	0.1842	0.1457	0.0971	0.0758	0.0519	0.0465	0.0352	0.0272	0.0241	0.0206	0.0083
63	0.1854	0.1473	0.0990	0.0775	0.0527	0.0467	0.0350	0.0272	0.0245	0.0217	0.0084
64	0.1863	0.1493	0.1013	0.0794	0.0536	0.0469	0.0349	0.0272	0.0250	0.0231	0.0087
65	0.1872	0.1516	0.1039	0.0816	0.0547	0.0473	0.0349	0.0274	0.0257	0.0247	0.0092
66	0.1881	0.1542	0.1067	0.0841	0.0560	0.0479	0.0351	0.0276	0.0266	0.0266	0.0100
67	0.1890	0.1571	0.1099	0.0868	0.0575	0.0485	0.0353	0.0280	0.0277	0.0288	0.0109
68	0.1899	0.1603	0.1132	0.0897	0.0590	0.0493	0.0357	0.0284	0.0288	0.0311	0.0121
69	0.1907	0.1634	0.1165	0.0926	0.0606	0.0500	0.0360	0.0289	0.0299	0.0335	0.0132
70	0.1916	0.1666	0.1199	0.0955	0.0622	0.0508	0.0363	0.0293	0.0311	0.0358	0.0144
71	0.1920	0.1682	0.1215	0.0969	0.0630	0.0512	0.0365	0.0295	0.0317	0.0370	0.0150
72	0.1924	0.1698	0.1232	0.0984	0.0538	0.0516	0.0367	0.0298	0.0322	0.0382	0.0156

Notices of Final Rulemaking

TABLE 7. GRADUATED TABULAR RATES OF WITHDRAWAL - ACTIVE FEMALE MEMBERS FEMALE WITHDRAWAL RATES

				164	13 OLDELY	<u>icc</u>					
1.00	<u>0</u>	1	2	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	2	<u>8</u>	9	<u>10+</u>
Age 16	0.3324	0.3249	0.2787	0.2761	0.2244	0.2216	0.1785	0.1486	0.1457	0.1356	0.2326
<u>15</u>	0.3324	0.3249	0.2787	0.2761	0.2244	0.2216	0.1785	0.1486	0.1457	0.1356	<u>0.2326</u>
<u>16</u>		0.3249	0.2787	0.2761	0.2244	0.2216	0.1785	0.1486	0.1457	0.1356	0.2326
<u>17</u>	0.3324		0.2787	0.2761	0.2244	0.2216	0.1785	0.1486	0.1457	0.1356	0.2326
<u>18</u>	0.3324	0.3249	0.2714	0.2678	0.2172	0.2146	0.1733	0.1445	0.1419	0.1320	0.2237
19	0.3220	0.3151		0.2596	0.2172	0.2077	0.1680	0.1405	0.1380	0.1285	0.2148
<u>20</u>	0.3116	0.3053	0.2640		0.1958	0.1937	0.1575	0.1323	0.1303	0.1215	0.1970
<u>21</u>	0.2908	0.2858	0.2492	0.2432		0.1808	0.1479	0.1248	0.1231	0.1150	0.1804
<u>22</u>	<u>0.2726</u>	0.2686	0.2358	0.2281	0.1826			0.1179	0.1165	0.1089	0.1648
<u>23</u>	<u>0.2569</u>	0.2536	0.2237	0.2143	0.1705	0.1690	0.1389	0.1114	0.1104	0.1033	0.1503
<u>24</u>	0.2434	0.2405	0.2127	0.2017	0.1593	0.1580	0.1307		0.1047	0.0980	0.1368
<u>25</u>	0.2321	0.2293	0.2027	0.1902	0.1491	0.1480	0.1231	0.1055		0.0931	0.1308
<u> 26</u>	0.2227	0.2197	0.1937	0.1796	<u>0.1397</u>	0.1388	0.1161	0.1000	0.0994		0.1242 0.1126
<u>27</u>	<u>0.2149</u>	0.2116	<u>0.1856</u>	0.1700	0.1311	0.1304	0.1097	0.0949	0.0945	0.0886	
<u>28</u>	0.2088	0.2048	0.1782	0.1612	0.1233	0.1226	0.1037	0.0901	0.0898	0.0842	0.1017
<u>29</u>	0.2044	0.1989	0.1714	<u>0.1531</u>	<u>0.1161</u>	0.1155	0.0982	0.0856	0.0854	0.0801	0.0916
<u>30</u>	0.2015	0.1937	0.1652	0.1456	<u>0.1094</u>	<u>0.1089</u>	0.0930	0.0813	0.0811	0.0760	0.0821
<u>31</u>	0.2003	0.1892	0.1593	0.1385	0.1032	0.1027	0.0880	0.0772	0.0770	0.0721	0.0731
<u>32</u>	0.2003	0.1851	0.1539	0.1320	0.0974	0.0969	0.0833	<u>0.0732</u>	0.0730	0.0682	0.0647
<u>33</u>	0.2007	0.1815	0.1487	0.1258	0.0921	0.0916	<u>0.0789</u>	<u>0.0694</u>	0.0691	0.0645	0.0569
<u>34</u>	0.2003	0.1785	0.1438	0.1201	0.0873	0.0867	0.0748	<u>0.0658</u>	<u>0.0653</u>	0.0608	0.0498
3 <u>5</u>	0.1984	0.1762	0.1390	0.1147	0.0829	0.0823	0.0710	0.0624	0.0617	<u>0.0573</u>	0.0436
<u>36</u>	0.1943	0.1745	0.1344	0.1097	0.0789	0.0783	0.0675	0.0591	0.0582	0.0539	0.0382
<u> 30</u>	0.1885	0.1732	0.1298	0.1050	0.0753	0.0747	0.0643	0.0561	0.0549	0.0506	0.0335
37	0.1821	0.1722	0.1255	0.1006	0.0721	0.0714	0.0613	0.0532	0.0518	0.0475	0.0296
<u>38</u>	<u>0.1821</u> 0.1762	0.1722	0.1213	0.0966	0.0692	0.0686	0.0587	0.0506	0.0488	0.0445	0.0264
<u>39</u>	0.1702 0.1720	0.1693	0.1174	0.0930	0.0666	0.0661	0.0563	0.0482	0.0461	0.0417	0.0239
<u>40</u>		0.1671	0.1138	0.0897	0.0644	0.0639	0.0543	0.0461	0.0437	0.0391	0.0220
41	<u>0.1701</u>		0.1138 0.1105	0.0868	0.0625	0.0620	0.0524	0.0441	0.0414	0.0367	0.0208
42	0.1699	0.1644	0.1103	0.0842	0.0608	0.0603	0.0508	0.0424	0.0393	0.0345	0.0199
<u>43</u>	0.1707	0.1614		0.0818	0.0593	0.0589	0.0494	0.0408	0.0374	0.0324	0.0194
<u>44</u>	0.1718	0.1584	0.1046	0.0318	0.0579	0.0575	0.0480	0.0394	0.0356	0.0305	0.0189
<u>45</u>	0.1725	0.1557	0.1020		0.0567	0.0563	0.0468	0.0380	0.0340	0.0287	0.0185
<u>46</u>	0.1726	0.1532	0.0996	0.0778	0.0556	0.0552	0.0456	0.0367	0.0325	0.0270	0.0181
<u>47</u>	0.1723	0.1510	0.0975	0.0761		0.0532	0.0445	0.0356	0.0311	0.0254	0.0177
<u>48</u>	<u>0.1717</u>	0.1490	0.0957	0.0746	0.0546		0.0435	0.0345	0.0298	0.0240	0.0173
<u>49</u>	0.1708	<u>0.1472</u>	0.0941	0.0733	0.0536	0.0531		0.0345	0.0287	0.0227	0.0167
<u>50</u>	<u>0.1698</u>	0.1457	0.0927	0.0722	0.0528	0.0522	0.0426	0.0326	0.0237	0.0216	0.0160
51 52 53	<u>0.1684</u>	<u>0.1443</u>	0.0917	0.0713	0.0521	0.0513	0.0417		0.0277	0.0206	0.0152
<u>52</u>	<u>0.1669</u>	<u>0.1431</u>	0.0909	0.0707	0.0515	0.0505	0.0408	0.0317	0.0260	0.0197	0.0143
<u>53</u>	<u>0.1656</u>	0.1422	0.0904	0.0702	0.0510	0.0497	0.0399	0.0309	0.0253	0.0191	0.0134
<u>54</u> <u>55</u>	<u>0.1650</u>	0.1416	<u>0.0901</u>	0.0700	<u>0.0505</u>	0.0490	0.0391	0.0302	0.0233	0.0131	0.0125
<u>55</u>	<u>0.1655</u>	0.1412	0.0901	0.0700	0.0503	0.0484	0.0384	0.0296		0.0183	0.0125
<u>56</u>	<u>0.1674</u>	0.1410	0.0903	0.0702	0.0501	0.0478	0.0377	0.0290	0.02563	0.0182	0.0110
<u>57</u>	0.1704	0.1412	0.0908	0.0706	0.0501	0.0474	0.0371	0.0286	0.0240	0.0182	0.0107
<u>58</u>	<u>0.1739</u>	<u>0.1416</u>	<u>0.0916</u>	0.0712	0.0502	0.0470	0.0366	0.0281	0.0237		
<u>59</u>	0.1775	0.1422	<u>0.0926</u>	0.0720	0.0504	0.0468	0.0361	0.0278	0.0236	0.0185	0.0093
<u>60</u>	0.1805	<u>0.1432</u>	<u>0.0939</u>	<u>0.0731</u>	0.0508	<u>0.0466</u>	<u>0.0357</u>	0.0275	0.0237	0.0190	0.0088
<u>61</u>	0.1827	0.1443	0.0954	0.0743	0.0513	<u>0.0465</u>	0.0354	0.0273	0.0238	0.0197	0.0085
<u>62</u>	0.1842	0.1457	0.0971	<u>0.0758</u>	<u>0.0519</u>	<u>0.0465</u>	0.0352	0.0272	0.0241	0.0206	0.0083
<u>63</u>	0.1854	0.1473	<u>0.0990</u>	<u>0.0775</u>	0.0527	<u>0.0467</u>	0.0350	0.0272	0.0245	0.0217	0.0084
64	0.1863	0.1493	0.1013	0.0794	<u>0.0536</u>	<u>0.0469</u>	0.0349	0.0272	<u>0.0250</u>	0.0231	0.0087
<u>65</u>	0.1872	0.1516	0.1039	0.0816	0.0547	0.0473	0.0349	0.0274	0.0257	0.0247	0.0092
<u>66</u>	0.1881	0.1542	0.1067	0.0841	0.0560	0.0479	0.0351	<u>0.0276</u>	<u>0.0266</u>	<u>0.0266</u>	0.0100
<u>67</u>	0.1890	0.1571	0.1099	0.0868	0.0575	0.0485	0.0353	0.0280	<u>0.0277</u>	0.0288	<u>0.0109</u>
<u>68</u>	0.1899	0.1603	0.1132	0.0897	0.0590	0.0493	0.0357	0.0284	0.0288	0.0311	0.0121
<u>69</u>	0.1907	0.1634	0.1165	0.0926	0.0606	0.0500	0.0360	0.0289	0.0299	0.0335	0.0132
<u>70</u>	0.1916	0.1666	0.1199	0.0955	0.0622	0.0508	0.0363	0.0293	0.0311	0.0358	0.0144
71	<u>0.1910</u> 0.1920	0.1682	0.1215	0.0969	0.0630	0.0512	0.0365	0.0295	0.0317	<u>0.0370</u>	0.0150
72	0.1924	0.1698			0.0638	0.0516	0.0367		0.0322	0.0382	<u>0.0156</u>
<u>72</u> 73	0.1714	0.1698			0.0646	0.0520	0.0369		0.0327	0.0394	0.0162
	0.1714	0.1698			0.0646	0.0520			0.0327	0.0394	0.0162
<u>74</u>	2.1714	0.1070	<u> </u>	-10000							

NOTICE OF FINAL RULEMAKING

TITLE 3. AGRICULTURE

CHAPTER 4. DEPARTMENT OF AGRICULTURE PLANT SERVICES DIVISION

PREAMBLE

Sections Affected

Rulemaking Action

R3-4-613 R3-4-614 R3-4-616 Amend Amend Amend Amend

Appendix A

The specific authority for the rulemaking, including both the authorizing statute (general) and the statutes the rules are implementing (specific):

Authorizing statute: A.R.S. § 3-912

Implementing statute: A.R.S. §§ 3-903 and 3-913.

The effective date of the rules:

September 11, 1997.

A list of all previous notices appearing in the Register addressing the adopted rule.

Notice of Rulemaking Docket Opening: 2 A.A.R. 3370, July 12, 1996.

Notice of Proposed Rulemaking: 3 A.A.R. 1002, April 11, 1997.

Notice of Public Hearing on Proposed Rulemaking: 3 A.A.R. 1669, June 13, 1997.

The name and address of agency personnel with whom persons may communicate regarding the rulemaking:

Name:

Shirley Conard, Rules Specialist

Address:

Arizona Department of Agriculture 1688 West Adams, Room 124

Phoenix, Arizona 85007

Telephone:

(602) 542-0962

(602) 542-5420

An explanation of the rule, including the agency's reasons for initiating the rule:

R3-4-613. Native Plant Permit Fees; Exemptions. No substantive information has been added to, or deleted from, this rule. The editing permits the Department to maintain a standard rule structure.

R3-4-614. Native Plant Tag and Receipt Fees. No substantive information has been added to, or deleted from, this rule. The editing permits the Department to maintain a standard rule structure.

R3-4-616. Use of Metal Seals. This rule deals with regulating the movement of protected native plant species. The Department has been consistently losing money by providing metal seals, free, to people moving protected native plants, particularly species obtained outside the state. Consequently, the Department has too few inspectors and not enough money to purchase large supplies of blue metal seals, this portion of the program has become too monumental to continue. The Department considered removing the requirement for tagging out-of-state protected native plants, however, preliminary industry comments suggest that this removal may promote cactus thievery and be detrimental to Arizona cactus merchants. Furthermore, it would be difficult to prove that the permit had not been used previously.

Appendix A, Protected Native Plants By Categories. Over the last few years, it has been apparent that the Agavaceae, Cactaceae, Liliaceae, and Orchidaceae families currently listed as salvage restricted protected native plants were not complete. These families, however, are so large that it is impossible to list each specie and plant within these categories. To remedy this problem, the initial statement preceding the salvage restricted listing protects all other species in these families. The specific changes in the List of Protected Native Plants by Categories was recommended by the Native Plant Technical Advisory Board at their 1995/1996 meeting.

7. A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision of this state:

Not applicable.

The summary of the economic, small business, and consumer impact:

The Department has been consistently losing money by providing blue seals, free of charge, to cactus haulers. A continuous decline in general funding prohibits the Department from subsidizing programs and requires devising ways for rule require-

Notices of Final Rulemaking

ments to pay for themselves. Removing the blue seal requirement was considered, but the native plant community expressed concerned that native plants from out-of-state would be moved and sold, and because blue seals weren't required, the same receipt would be used to move Arizona native plants.

A. Estimated Costs and Benefits to the Arizona Department of Agriculture

Because of limited funding and personnel, the Department has been unable to enforce the blue seal requirement for native plants obtained outside of the State. Neither the Department nor the State receives any benefit or revenue from the current blue metal seal requirements. Since funding does not exist to provide additional inspectors or monies to supply blue seals for these plants, the Department has been unable to regulate protected native plants entering the state. An application for a Movement Permit is only \$5, however with this application comes a request for a specific number of blue seals. If 500 blue seals are requested (6¢ per blue seal = \$30), the loss is \$30 for this transaction. In the past, the Department was supplying 2,000 blue seals per month. (24,000 seals = \$1440 per year) To reestablish this program and fairly handle the cost of metal seals, this rulemaking targets only those people using the program, whether out-of-state users, or in-state users, and removes the financial burden from the Department. The Department will be reimbursed for the cost of supplying metal seals to program users.

B. Estimated Costs and Benefits to Political Subdivisions

Political subdivisions of this state are not directly affected by the implementation and enforcement of this rulemaking.

C. Businesses Directly Affected By the Rulemaking

Businesses moving protected native plants will be affected by the metal seal cost. In the past, this cost has been absorbed by the Department. Since this is no longer possible and it is essential to maintain the integrity of the protective native plant program, the cost is being transferred to those people using the program. Currently each seal is 6¢ and will be available at this cost from the Department.

D. Estimated Costs and Benefits to Private and Public Employment

Private and public employment are not directly affected by the implementation and enforcement of this rulemaking.

E. Estimated Costs and Benefits to Consumers and the Public

Consumers and the public will also be affected by the metal seal cost. As in the case of business, the cost is being transferred to those persons using the program. Currently each seal is 6¢ and will be available at this cost from the Department.

F. Estimated Costs and Benefits to State Revenues

This rulemaking will have a small impact on state revenues. A.R.S. § 3-913(C), Fiscal provisions; fees; Arizona protected native plant fund, provides that 10% of [a]ll fees, civil penalties and other monies collected under this chapter shall be transferred to the state treasurer for credit to the fund. If the tags are requested at the previous rate of 2,000 per month, this would result in an additional \$144 to the state general fund.

9. A description of the changes between the proposed rules, including supplemental notices, and final rules (if applicable):

The seal color established in R3-2-616(C), which is attached to all protected native plant species obtained outside the state, has been changed to yellow. This change will make it easier for the Department, and any other person or agency, to readily distinguish the origination of the plant. The addition of this yellow seal makes the term 'Blue Seal Movement Permit' inaccurate. This permit name has been changed to 'Movement Permit.' The subsections in R3-4-616 have also been moved to a more logical order.

10. A summary of the principal comments and the agency response to them:

The question arose concerning the change in tag fees. The Department responded that there were no tag fee changes. The only fee changes dealt with the blue and yellow seals which would be charged at cost to the consumer.

11. Any other matters prescribed by statute that are applicable to the specific agency or to any specific rule or class of rules:

None.

12. Incorporations by reference and their location in the rule:

None.

13. Was this rule previously adopted as an emergency rule?

Nο

14. The full text of the rules follows:

TITLE 3. AGRICULTURE

CHAPTER 4. DEPARTMENT OF AGRICULTURE PLANT SERVICES DIVISION

ARTICLE 6. ARIZONA NATIVE PLANTS

R3-4-613.	Native Plant Permit Fees; Exemptions
R3-4-614.	Native Plant Tag Assessments and Receipt Fees
D2.4.616	Use of Metal Seals, Movement Permit

Section

Appendix A Protected Group of Native Plants - Covered
List of Protected Native Plants By Categories

ARTICLE 6. ARIZONA NATIVE PLANTS

R3-4-613. Native Plant Permit Fees; Exemptions

- A. Pursuant to A.R.S. § 3-913, the following fees are established for protected native plant permits: Any person wishing to collect protected native plants shall submit the following applicable fee to the Department with the permit application prescribed in R3-4-610:
 - Salvage-assessed native plants, annual use; \$25.
 - 2. Harvest-restricted native plants, annual use; \$25.
 - 3. All other native plants, one-time use; \$5.
- B. Permit fees are non-refundable and shall be paid to the Department at the time the permit is obtained.
- C.B. Personal use of The Department shall exempt from permit fees plants for personal use by landowners a landowner or plants relocated to a scientific and educational collection shall be exempt from permit fees provided that:
 - The plants intended for personal use by the landowner are taken from 1 piece of land owned by the landowner to another piece of land also owned by the landowner, remain the property of the landowner, and are not sold or offered for sale; or
 - The plants are intended for scientific and educational purposes and are relocated to a scientific and educational collection.

R3-4-614. Native Plant Tag Assessments and Receipt Fees

- A. Pursuant to A.R.S. § 3-913, the following fees are established for protected native plant tags: Any person wishing to obtain white or yellow tags shall submit the following applicable fee to the Department with the permit application prescribed in R3-4-610 at the time the tag is obtained:
 - 1. Saguaro; \$5 per plant.
 - Trees cut for firewood and listed in the harvest restricted category; \$3 per cord-of firewood.
 - Coryphantha, mammillaria and pincushion cactus; 50¢ per plant.
 - All other protected native plants, as referenced in A.R.S. § 3-903(B) and listed in Appendix A; \$3 per plant.
- B. Tag fees are non-refundable and shall be paid to the Department at the time the tag is obtained.
- C.B. Receipt fees are non-refundable and Assessment fees for harvested restricted native plants of nolina and yucca parts shall be paid to the Department at \$3 per ton no later than the 10th day of each the month following each harvest.
 - 1. Harvested parts of nolina and yucca; \$3 per ton.
- D. Landowners obtaining a permit for the personal use of plants shall not be required to obtain native plant tags.

R3-4-616. Use of Metal Seals, Movement Permit

A. Blue metal seals, which have a one-time use, shall be attached to identify protected native plant species which:

- 1. Have previously been transplanted from their original growing sites and are to be transplanted to another location: or
- Were obtained outside the state of Arizona and are to be transported and planted within the state.
- B. The Department shall issue a Blue Seal Movement Permit to any person requesting blue metal seals set forth in paragraph (A)(1). The permit shall include:
 - 1. The shipper, carrier and receiver of the protected native
 - The type and number of plants being removed and transported; and
 - 3. The permit expiration date.
- C. The Department shall issue an Inspection Record to any person requesting blue metal seals as set forth in paragraph (A)(2). The record shall include:
 - 1. The shipper and receiver of the protected native plant species; and
 - The type and number of the protected native plants species imported.
- White metal seals, which have a one time use, shall be attached prior to the time of taking or removing such plants from their original growing sites to identify protected native plants, other than saguare eacti.
- E. Red metal seals, which have a one-time use, shall be attached to identify protected saguaro eacti prior to the time of taking or removing such plants from their original growing sites.
- A. Any person wishing to move a protected native plant that has previously been transplanted from its original growing site in Arizona and will be transplanted to another location shall apply to the Department for a Movement Permit. The property owner where the plant is being moved from shall provide the following information on the permit application. The Movement Permit shall contain:
 - The property owner's name and telephone number;
 - The location of the plant;
 - 3. The name, address, and telephone number of the receiver;
 - 4. The name, address, and telephone number of the carrier;
 - The number, species, and description of the plants to be removed;
 - The signature of the property owner; and
 - 6. The date of the application.
- B. Any person wishing to move a protected native plant that has been obtained outside Arizona and will be transported and planted within the state shall declare the protected native plant at the agricultural inspection station nearest the port of entry. The Department shall place the protected native plant under quarantine to the nearest district office. The person shall obtain a yellow seal and a movement permit at the nearest district office. If no agricultural inspection station is in operation at the port of entry, the person shall declare the protected native plant at the nearest district office and obtain the yellow seal and Movement Permit.
- C. Any person wishing to move protected native plants shall obtain, at cost, metal seals from the Department.
 - 1. Blue seals which have a 1-time use, shall be securely attached to identify each protected native plant described in subsection (A).
 - White seals, which have a 1-time use, shall be securely attached to identify protected native plants, other than

- saguaro cacti, before taking or removing the plants from their original growing sites.
- 3. Red seals, which have a 1-time use, shall be securely attached to identify protected saguaro cacti before taking or removing the plants from their original growing
- Yellow seals, which have a 1-time use, shall be securely attached to identify protected native plants described in subsection (B).

APPENDIX A

PROTECTED GROUP OF PLANTS COVERED LIST OF PROTECTED NATIVE PLANTS BY CATEGORIES

- A. Highly Safeguarded Protected Native Plants The following list includes those species of native plants and parts of plants, including the seeds and fruit, whose prospects for survival in Arizona are in jeopardy or which are in danger of extinction.
 - AGAVACEAE Agave Family
 - a. Agave arizonica Gentry & Weber-Arizona agave
 - Agave delamateri Eckers & Hodgson ined & Slau-
 - Agave murpheyi Gibson-Hohokam agave
 - Agave parviflora Torr.-Santa Cruz striped agave, Small-flowered agave
 - Agave schottii Engelm. var. treleasei (Toumey) Kearney & Peebles
 - APIACEAE Parsley Family. [= Umbelliferae] Lilaeopsis schaffneriana (Schlecht.) Coult. & Rose ssp. recurva (A. W. Hill) Affolter-Cienega false rush, Huachuca water umbel. Syn.: Lilaeopsis recurva A. W. Hill
 - APOCYNACEAE Dogbane Family
 - Amsonia kearneyana Woods.-Kearney's bluestar
 - Cycladenia humilis Benth. var. jonesii (Eastw.) Welsh & Atwood-Jone's cycladenia
 - ASCLEPIADACEAE Milkweed Family Asclepias welshii N. & P. Holmgren-Welsh's milkweed
 - ASTERACEAE Sunflower Family [= Compositae]
 - Erigeron lemmonii Gray-Lemmon fleabane
 - Senecio franciscanus Greene-San Francisco Peaks groundsel
 - Senecio huachucanus Gray-Huachuca groundsel
 - BURSERACEAE Torch Wood Family Bursera fagaroides (H.B.K.) Engler-Fragrant bursera
 - **CACTACEAE** Cactus Family
 - Carnegiea gigantea (Engelm.) Britt. & Rose-Saguaro: 'Crested' or 'Fan-top' form only Syn.: Cereus giganteus Engelm.
 - Coryphantha recurvata (Engelm.) Britt. & Rose-Golden-chested beehive cactus Syn.: Mammillaria recurvata Engelm.
 - Coryphantha robbinsorum (W. H. Earle) A. Zimmerman-Cochise pincushion cactus, Robbin's cory cactus
 - Syn.: Cochiseia robbinsorum W.H. Earle
 - Corvphantha scheeri (Kuntze) L. Benson var. robustispina (Schott) L. Benson-Scheer's strongspined cory cactus.
 - Syn.: Mammillaria robustispina Schott
 - Echinocactus horizonthalonius Lemaire var. nicholii L. Benson-Nichol's Turk's head cactus

- Echinocereus triglochidiatus Engelm, var. arizonicus (Rose ex Orcutt) L. Benson-Arizona hedgehog cactus
- Echinomastus erectocentrus (Coult.) Britt. & Rose var. acunensis (W.T.Marshall) L.Benson-Acuna
 - Syn.: Neolloydia erectocentra (Coult.) L. Benson var. acunensis (W. T. Marshall) L. Benson
- Pediocactus bradyi L. Benson-Brady's pincushion cactus
- Pediocactus paradinei B. W. Benson-Paradine plains cactus
- Pediocactus peeblesianus (Croizat) L. Benson var. fickeiseniae L. Benson
- k. Pediocactus peeblesianus (Croizat) L. Benson var. peeblesianus Peebles' Navajo cactus, Navajo plains cactus Syn.: Navajoa peeblesiana Croizat
- Pediocactus sileri (Engelm.) L. Benson-Siler pincushion cactus
- Syn.: Utahia sileri (Engelm.) Britt. & Rose COCHLOSPERMACEAE Cochlospermum Family Amoreuxia gonzalezii Sprague & Riley
- CYPERACEAE Sedge Family

Carex specuicola J. T. Howell-Navajo sedge

- FABACEAE Pea Family [=Leguminosae]
 - Astragalus cremnophylax Barneby var. cremnophylax Sentry milk vetch
 - Astragalus holmgreniorum Barneby-Holmgren milk-vetch
 - Dalea tentaculoides Gentry-Gentry indigo bush
- 10: LENNOACEAE Lennoa Family
 - a. Pholisma arenarium Nutt.-Scaly-stemmed sand plant
 - Pholisma sonorae (Torr. ex Gray) Yatskievych-Sandfood, sandroot
- Syn.: Ammobroma sonorae Torr. ex Gray 11. LILIACEAE Lily Family
- Allium gooddingii Ownbey-Goodding's onion

- 42. ORCHIDACEAE Orchid Family
 - Cypripedium calceolus L. var. pubescens (Willd.) Correll-Yellow lady's slipper
 - Hexalectris warnockii Ames & Correll-Texas purple spike
 - Spiranthes delitescens C. Sheviak
- 13. POACEAE Grass Family [=Gramineae] Puccinellia parishii A.S. Hitchc.-Parish alkali
- 14. POLYGONACEAE Buckwheat Family Rumex orthoneurus Rech. f.
- 15. PSILOTACEAE Psilotum Family Psilotum nudum (L.) Beauv. Bush Moss, Whisk
- 16: RANUNCULACEAE Buttercup Family
 - Cimicifuga arizonica Wats.-Arizona bugbane
 - Clematis hirsutissima Pursh var. arizonica (Heller) Erickson-Arizona leatherflower.
- 17. ROSACEAE Rose Family

Purshia subintegra (Kearney) J. Hendrickson-Arizona cliffrose, Burro Creek cliffrose

- Syn.: Cowania subintegra Kearney
- 18: SALICACEAE Willow Family Salix arizonica Dom-Arizona willow
- 19. SCROPHULARIACEAE Figwort Family Penstemon discolor Keck-Variegated beardtongue

B. Salvage Restricted Protected Native Plants

The following list includes those <u>species of</u> native plants which that are not included in the highly safeguarded category but are subject to damage by theft or vandalism. In addition to the plants listed under Agavaceae, Cactaceae, Liliaceae, and Orchidaceae, all other species in these families are salvage restricted protected native plants.

- 1. AGAVACEAE Agave Family
 - a Agave chrysantha Peebles
 - b. Agave deserti Engelm. ssp. simplex Gentry-Desert agave
 - e. Agave mckelveyana Gentry
 - 4. Agave palmeri Engelm.
 - e. Agave parryi Engelm. var. couseii (Engelm. ex Trel.) Kearney & Peebles
 - f. Agave parryi Engelm. var. huachucensis (Baker) Little ex L. Benson
 - Syn.: Agave huachucensis Baker
 - g- Agave parryi Engelm. var. parryi
 - Agave schottii Engelm. var. schottii Shindigger
 - h. Agave toumeyana Trel. ssp. bella (Breitung) Gentry
 - 4. Agave toumeyana Trel. ssp. toumeyana
 - j. Agave utahensis Engelm. spp. kaibabensis (McKelvey) Gentry Syn.: Agave kaibabensis McKelvey
 - k. Agave utahensis Engelm. var. utahensis
 - 4. Dasylirion wheeleri Wats.-Sotol, desert spoon
 - m. Nolina bigelovii (Torr.) Wats.-Bigelow's nolina
 - n. Nolina microcarpa Wats.-Beargrass, sacahuista
 - e. Nolina parryi Wats.-Parry's nolina
 - p. Nolina texana Wats. var. compacta (Trel.) Johnst.— Bunchgrass
 - 4. Yucca angustissima Engelm. var. angustissima
 - Yucca angustissima Engelm, var. kanabensis (McKelvey) Reveal
 Syn.: Yucca kanabensis McKelvey
 - s. Yucca arizonica McKelvey
 - t Yucca baccata Torr. var. baccata-Banana yucca
 - tt. Yucca baccata Torr. var. vespertina McKelvey
 - Yucca baileyi Woot. & Standl. var. intermedia (McKelvey) Reveal
 Syn.: Yucca navajoa Webber
 - w. Yucca brevifolia Engelm. var. brevifolia-Joshua tree
 - *- Yucca brevifolia Engelm. var. jaegeriana McK-
 - y: Yucca elata Engelm. var. elata-Soaptree yucca, palmilla
 - ₹. Yucca elata Engelm var. utahensis (McKelvey)
 Reveal
 - Syn.: Yucca utahensis McKelvey
 - ea. Yucca elata Engelm. var. verdiensis (McKelvey) Reveal
 - Syn.: Yucca verdiensis McKelvey
 - bb. Yucca harrimaniae Trel.
 - ee. Yucca schidigera Roezl.-Mohave yucca, Spanish dagger
 - dd. Yucca schottii Engelm.-Hairy yucca
 - ee. Yucca thornberi McKelvey
 - Yucca whipplei Torr. var. whipplei—Our Lord's candle
 - Syn.: Yucca newberryi McKelvey
- 2. AMARYLLIDACEAE Amaryllis Family
 - Zephyranthes longifolia Hemsl.-Plains Rain Lily

- 3- ANACARDIACEAE Sumac Family
 Rhus kearneyi Barkley-Kearney Sumac
- ARECACEAE Palm Family [=Palmae]
 Washingtonia filifera (Linden ex Andre) H.
 Wendl-California fan palm
- 5. ASTERACEAE Sunflower Family [=Compositae]
 - e: Cirsium parryi (Gray) Petrak ssp. mogollonicum Schaak
 - b. Cirsium virginensis Welsh-Virgin thistle
 - e. Erigeron kuschei Eastw.-Chiricahua fleabane
 - d. Erigeron piscaticus Nesom-Fish Creek fleabane
 - e: Flaveria macdougalii Theroux, Pinkava & Keil
 - £ Perityle ajoensis Todson-Ajo rock daisy
 - g. Perityle cochisensis (Niles) Powell-Chiricahua rock daisy
 - h. Senecio quaerens Greene-Gila groundsel
- 6. BURSERACEAE Torch-Wood Family
 - Bursera microphylla Gray-Elephant tree, torote
- 7. CACTACEAE Cactus Family
 - a: Carnegiea gigantea (Engelm.) Britt. & Rose-Saguaro
 - Syn.: Cereus giganteus Engelm.
 - b. Coryphantha missouriensis (Sweet) Britt. & Rose
 - e: Coryphantha missouriensis (Sweet) Britt. & Rose var. marstonii (Clover) L. Benson
 - d: Coryphantha scheeri (Kuntze) L. Benson var. valida (Engelm.) L. Benson
 - e: Coryphantha strobiliformis (Poselger) var. orcuttii (Rose) L. Benson
 - £ Coryphantha strobiliformis (Poselger) var. strobiliformis
 - g. Coryphantha vivipara (Nutt.) Britt. & Rose var. alversonii (Coult.) L. Benson
 - h: Coryphantha vivipara (Nutt.) Britt. & Rose var. arizonica (Engelm.) W. T. Marshall Syn.: Mammillaria arizonica Engelm.
 - : Coryphantha vivipara (Nutt.) Britt. & Rose var. bisbeeana (Orcutt) L. Benson
 - j. Coryphantha vivipara (Nutt.) Britt. & Rose var. deserti (Engelm.) W. T. Marshall
 Syn.: Mammillaria chlorantha Engelm.
 - k: Coryphantha vivipara (Nutt.) Britt. & Rose var. rosea (Clokey) L. Benson
 - Echinocactus polycephalus Engelm. & Bigel. var. polycephalus
 - m. Echinocactus polycephalus Engelm. & Bigel. var. xeranthemoides Engelm. ex Coult.

 Syn.: Echinocactus xeranthemoides Engelm. ex Coult.
 - n. Echinocereus engelmannii (Parry ex Engelm.) Lemaire var. acicularis L. Benson
 - e: Echinocereus engelmannii (Parry ex Engelm.) Lemaire var. armatus L. Benson
 - P: Echinocereus engelmannii (Parry ex Engelm.) Lemaire var. chrysocentrus L. Benson
 - Echinocereus engelmannii (Parry ex. Engelm.) Lemaire var. engelmannii
 - Echinocereus engelmannii (Parry) Lemaire var. variegatus (Engelm.) Engelm. ex Rümpler Echinocereus fasciculatus (Engelm. ex B. D. Jack-
 - son) L. Benson var. fasciculatus Syn.: Echinocereus fendleri (Engelm.) Rümpler var. fasciculatus (Engelm. ex B. D. Jackson) N. P. Taylor, Echinocereus fendleri (Engelm.) Rümpler

- var. robusta L. Benson; Mammillaria fasciculata Engelm.
- Echinocereus fasciculatus (Engelm. ex B. D. Jackson) L. Benson var. bonkerae (Thomber & Bonker) L. Benson.
 - Syn.: Echinocereus boyce-thompsonii Orcutt var. bonkerae Peebles; Echinocereus fendleri (Engelm.) Rümpler var. bonkerae (Thomber & Bonker) L. Benson
- Echinocereus fasciculatus (Engelm. ex B. D. Jackson) L. Benson var. boyce-thompsonii (Orcutt) L. Benson
 - Syn.: Echinocereus boyce-thompsonii Orcutt
- v. Echinocereus fendleri (Engelm.) Rümpler var. boyce-thompsonii (Orcutt) L. Benson
- W. Echinocereus fendleri (Engelm.) Rümpler var. fendleri
- Echinocereus fendleri (Engelm.) Rümpler var. rectispinus (Peebles) L. Benson
- ¥. Echinocereus ledingii Peebles
- Echinocereus nicholii (L. Benson) Parfitt.
 Syn.: Echinocereus engelmannii (Parry ex Engelm.) Lemaire var. nicholii L. Benson
- aa: Echinocereus pectinatus (Scheidw.) Engelm. var. dasyacanthus (Engelm.) N. P. Taylor
 Syn.: Echinocereus pectinatus (Scheidw.) Engelm. var. neomexicanus (Coult.) L. Benson
- bb. Echinocereus polyacanthus Engelm. (1848) var. polyacanthus
- ee: Echinocereus pseudopectinatus (N. P. Taylor) N. P. Taylor
 - Syn.: Echinocereus bristolii W. T. Marshall var. pseudopectinatus N. P. Taylor, Echinocereus pectinatus (Scheidw.) Engelm. var. pectinatus sensu Kearney and Peebles, Arizona Flora, and L. Benson, The Cacti of Arizona and The Cacti of the United States and Canada.
- dd: Echinocereus rigidissimus (Engelm.) Hort. F. A. Haage.
 - Syn.: Echinocereus pectinatus (Scheidw.) Engelm. var. rigidissimus (Engelm.) Engelm. ex Rümpler-Rainbow cactus
- ee: Echinocereus triglochidiatus Engelm. var. gonacanthus (Engelm. & Bigel.) Boiss.
- £. Echinocereus triglochidiatus Engelm. var. melanacanthus (Engelm.) L. Benson Syn.: Mammillaria aggregata Engelm.
- gg. Echinocereus triglochidiatus Engelm. var. mojavensis (Engelm.) L. Benson
- hh. Echinocereus triglochidiatus Engelm. var. neomexicanus (Standl.) Standl. ex W. T. Marshall.

 Syn.: Echinocereus triglochidiatus Engelm. var. polyacanthus (Engelm. 1859 non 1848) L. Benson
- ii. Echinocereus triglochidiatus Engelm. var. triglochidiatus
- jj. Echinomastus erectocentrus (Coult.) Britt. & Rose var. erectocentrus

 Syn.: Neolloydia erectocentra (Coult.) L. Benson var. erectocentra
- kk. Echinomastus intertextus (Engelm.) Britt. & Rose Syn.: Neolloydia intertexta (Engelg.) L. Benson
- # Echinomastus johnsonii (Parry) Baxter-Beehive cactus Syn.: Neolloydia johnsonii (Parry) L. Benson

- mm. Epithelantha micromeris (Engelm.) Weber ex Britt. & Rose
- nn: Ferocactus cylindraceus (Engelm.) Orcutt var. cylindraceus—Barrel cactus Syn.: Ferocactus acanthodes (Lemaire) Britt. & Rose var. acanthodes
- ee: Ferocactus cylindraceus (Engelm.) Orcutt var. eastwoodiae (Engelm.) N. P. Taylor Syn.: Ferocactus acanthodes (Lemaire) Britt. & Rose var. eastwoodiae L. Benson; Ferocactus eastwoodiae (L. Benson) L. Benson
- pp. Ferocactus cylindraceus (Engelm.) Orcutt. var. lecontei (Engelm.) H. Bravo
 Syn.: Ferocactus acanthodes (Lemaire) Britt. & Rose var. leconti (Engelm.) Lindsay; Ferocactus lecontei (Engelm.) Britt. & Rose
- qq. Ferocactus emoryi (Engelm.) Orcutt-Barrel cactus Syn.: Ferocactus covillei Britt. & Rose
- # Ferocactus wislizenii (Engelm.) Britt. & Rose-Barrel cactus
- ss. Lophocereus schottii (Engelm.) Britt. & Rose-Senita
- # Mammillaria grahamii Engelm. var. grahamii
- uu: Mammillaria grahamii Engelm. var. oliviae (Orcutt) L. Benson Syn.: Mammillaria oliviae Orcutt
- Wammillaria heyderi Mühlenpf, var. heyderi Syn.: Mammillaria gummifera Engelm. var. applanata (Engelm.) L. Benson
- www. Mammillaria heyderi Mühlenpf. var. macdougalii (Rose) L. Benson Syn.: Mammillaria gummifera Engelm. var. macdougalii (Rose) L. Benson; Mammillaria macdougalii Rose
- ***: Mammillaria heyderi Mühlenpf. var. meiacantha (Engelm.) L. Benson Syn.: Mammillaria gummifera Engelm. var. meiacantha (Engelm.) L. Benson
- yy: Mammillaria lasiacantha Engelm.
- zz. Mammillaria mainiae K. Brand.
- ana. Mammillaria microcarpa Engelm.
- bbb. Mammillaria tetrancistra Engelm.
- eee. Mammillaria thornberi Orcutt
- ddd. Mammillaria viridiflora (Britt. & Rose) Bödeker. Syn.: Mammillaria orestra L. Benson
- eee: Mammillaria wrightii Engelm. var. wilcoxii (Toumey ex K. Schumann) W. T. Marshall Syn.: Mammillaria wilcoxii Toumey
- fff. Mammillaria wrightii Engelm. var. wrightii
- ggg. Opuntia acanthocarpa Engelm. & Bigel. var. acanthocarpa—Buckhorn cholla
- hhh. Opuntia acanthocarpa Engelm. & Bigel. var. coloradensis L. Benson
- iii. Opuntia acanthocarpa Engelm. & Bigel. var. major L. Benson Syn.: Opuntia acanthocarpa Engelm. & Bigel var. ramosa Peebles
- jjj. Opuntia acanthocarpa Engelm. & Bigel. var. thornberi (Thornber & Bonker) L. Benson Syn.: Opuntia thornberi Thornber & Bonker
- kkk. Opuntia arbuscula Engelm.-Pencil cholla
- III. Opuntia basilaris Engelm. & Bigel. var. aurea (Baxter) W. T. Marshall-Yellow beavertail Syn.: Opuntia aurea Baxter

- mmm.Opuntia basilaris Engelm. & Bigel. var. basilaris-Beavertail cactus
- nnn. Opuntia basilaris Engelm. & Bigel. var. longiareolata (Clover & Jotter) L. Benson
- ooo: Opuntia basilaris Engelm. & Bigel. var. treleasei (Coult.) Toumey
- ppp: Opuntia bigelovii Engelm.—Teddy-bear cholla Opuntia campii ined.
- qqq-Opuntia canada Griffiths (O. phaeacantha Engelm. var. laevis X major and O. gilvescens Griffiths).
- FFF. Opuntia chlorotica Engelm. & Bigel.-Pancake prickly-pear
- sss. Opuntia clavata Engelm.-Club cholla
- ttt. Opuntia curvospina Griffiths
- uuu. Opuntia echinocarpa Engelm. & Bigel-Silver cholla
- VVV. Opuntia emoryi Engelm.-Devil cholla Syn.: Opuntia stanlyi Engelm. ex B. D. Jackson var. stanlyi
- www.Opuntia engelmannii Salm-Dyck ex Engelm. var. engelmannii-Engelmann's prickly-pear
 Syn.: Opuntia phaeacantha Engelm. var. discata (Griffiths) Benson & Walkington
- ******. Opuntia engelmannii Salm-Dyck ex Engelm. var. flavospina (L.Benson) Parfitt & Pinkava
 Syn.: Opuntia phaeacantha Engelm. var. flavispina
 L. Benson
- yyy. Opuntia erinacea Engelm. & Bigel. var. erinacea— Mohave prickly-pear
- Opuntia erinacea Engelm. & Bigel. var. hystricina (Engelm. & Bigel.) L. Benson Syn.: Opuntia hystricina Engelm. & Bigel.
- anna. Opuntia erinacea Engelm. & Bigel. var. ursina (Weber) Parish-Grizzly bear prickly-pear Syn.: Opuntia ursina Weber
- bbbb:Opuntia erinacea Engelm. & Bigel. var. utahensis (Engelm.) L. Benson Syn.: Opuntia rhodantha Schum.
- eeee.Opuntia fragilis Nutt. var. brachyarthra (Engelm. & Bigel.) Coult.
- dddd.Opuntia fragilis Nutt. var. fragilis-Little pricklypear
- eece. Opuntia fulgida Engelm. var. fulgida—Jumping chain-fruit cholla
- ffff. Opuntia fulgida Engelm. var. mammillata (Schott)
 Coult.
- gggg:Opuntia imbricata (Haw.) DC.-Tree cholla hhhhh:Opuntia X kelvinensis V. & K. Grant pro sp. Syn.:Opuntia kelvinensis V. & K. Grant
- iiii. Opuntia kleiniae DC. var. tetracantha (Toumey)
 W. T. Marshall
 Syn.: Opuntia tetrancistra Toumey
- jijj. Opuntia kunzei Rose.
 Syn.: Opuntia stanlyi Engelm. ex B. D. Jackson var. kunzei (Rose) L. Benson; Opuntia kunzei Rose var. wrightiana (E. M. Baxter) Peebles; Opuntia wrightiana E. M. Baxter
- kkkk:Opuntia leptocaulis DC.-Desert Christmas cactus, Pencil cholla
- IIII. Opuntia littoralis (Engelm.) Cockl. var. vaseyi (Coult.) Benson & Walkington
- mmmm.Opuntia macrocentra Engelm.-Purple pricklypear

- Syn.: Opuntia violacea Engelm. ex B. D. Jackson var. macrocentra (Engelm.) L. Benson; Opuntia violacea Engelm. ex B. D. Jackson var. violacea
- nnnn:Opuntia macrorhiza Engelm. var. macrorhiza-Plains prickly-pear
 - Syn.: Opuntia plumbea Rose
- eeee.Opuntia macrorhiza Engelm. var. pottsii (Salm-Dyck) L. Benson
- pppp:Opuntia martiniana (L. Benson) Parfitt Syn.: Opuntia littoralis (Engelm.) Cockerell var. martiniana (L. Benson) L. Benson; Opuntia macrocentra Engelm. var. martiniana L. Benson
- qqqq.Opuntia nicholii L. Benson-Navajo Bridge prickly-pear
- FFFF: Opuntia parishii Orcutt.

 Syn.: Opuntia stanlyi Engelm. ex B. D. Jackson var. parishii (Orcutt) L. Benson
- ssss. Opuntia phaeacantha Engelm. var. laevis (Coult.) L. Benson
 - Syn.: Opuntia laevis Coult.
- tttt. Opuntia phaeacantha Engelm. var. major Engelm. uuuu. Opuntia phaeacantha Engelm. var. phaeacantha
- vvvv. Opuntia phaeacantha Engelm. var. superbospina (Griffiths) L. Benson
- www.Opuntia polyacantha Haw. var. juniperina (Engelm.) L. Benson
- ***XX**.Opuntia polyacantha Haw. var. rufispina (Engelm.) L. Benson
- уууу. Opuntia polyacantha Haw. var. trichophora (Engelm. & Bigel.) L. Benson
- 2222. Opuntia pulchella Engelm.-Sand cholla
- anna. Opuntia ramosissima Engelm.-Diamond cholla
- bbbbb.Opuntia santa-rita (Griffiths & Hare) Rose—Santa Rita prickly-pear
 - Syn.: Opuntia violacea Engelm. ex B. D. Jackson var. santa-rita (Griffiths & Hare) L. Benson
- eeeeee.Opuntia spinosior (Engelm.) Toumey-Cane cholla
- ddddd.Opuntia versicolor Engelm.—Staghorn cholla Opuntia vivipara Engelm
- eeeee. Opuntia whipplei Engelm. & Bigel. var. multigeniculata (Clokey) L. Benson
- ggggg.Opuntia wigginsii L. Benson
- hhhhh. Pediocactus papyracanthus (Engelm.) L. Benson Grama grass cactus
 - Syn.: *Toumeya papyracanthus* (Engelm.) Britt. & Rose
- iiiii: Pediocactus simpsonii (Engelm.) Britt & Rose var. simpsonii
- iiiii- Peniocereus greggii (Engelm.) Britt. & Rose var. greggii-Night-blooming cereus Syn.: Cereus greggii Engelm.
- kkkkk.Peniocereus greggii (Engelm.) Britt & Rose var. transmontanus-Queen-of-the-Night
- HIII. Peniocereus striatus (Brandegee) Buxbaum.
 Syn.: Neoevansia striata (Brandegee) SanchezMejorada; Cereus striatus Brandegee; Wilcoxia
 diguetii (Webber) Peebles
- mmmmm.Sclerocactus parviflorus Clover & Jotter var. intermedius (Peebles) Woodruff & L. Benson Syn.: Sclerocactus intermedius Peebles
- nnnnn. Sclerocacius parviflorus Clover & Jotter var. parviflorus

Syn.: Sclerocactus whipplei (Engelm. & Bigel.)
Britt. & Rose var. roseus (Clover) L. Benson
00000-Sclerocactus pubispinus (Engelm.) L. Peebles

ppppp.Sclerocactus spinosior (Engelm.) Woodruff & L.
Benson

Syn.: Sclerocactus pubispinus (Engelm.) L. Benson var. sileri L. Benson

qqqq-Sclerocactus whipplei (Engelm. & Bigel.) Britt. & Rose

FITT. Stenocereus thurberi (Engelm.) F. Buxbaum-Organ pipe cactus

Syn.: Cereus thurberi Engelm.; Lemairocereus thurberi (Engelm.) Britt. & Rose

8. CAMPANULACEAE Bellflower Family

a: Lobelia cardinalis L. ssp. graminea (Lam.) McVaugh-Cardinal flower

b. Lobelia fenestralis Cav.-Leafy lobelia

e. Lobelia laxiflora H. B. K. var. angustifolia A. DC.

9. CAPPARACEAE Cappar Family [=Capparidaceae] Cleome multicaulis DC.—Playa spiderflower

10. COCHLOSPERMACEAE Cochlospermum Family
Amoreuxia gonzalezii Sprague & Riley

11. CHENOPODIACEAE Goosefoot Family Atriplex hymenelytra (Tort.) Wats.

12. CRASSULACEAE Stonecrop Family

e. Dudleya arizonica (Nutt.) Britt. & Rose Syn.: Echeveria pulverulenta Nutt. ssp. arizonica (Rose) Clokey

b. Dudleya saxosa (M.E. Jones) Britt. & Rose ssp. collomiae (Rose) Moran
 Syn.: Echeveria collomiae (Rose) Kearney & Peebles

e: Graptopetalum bartramii Rose Syn.:Echevaria bartramii (Rose) K. & P.

d. Graptopetalum bartramii Rose-Bartram's stonecrop, Bartram's live-forever Syn.: Echeveria bartramii (Rose) Kearney & Peebles

e: Graptopetalum rusbyi (Greene) Rose Syn.: Echeveria rusbyi (Greene) Nels. & Macbr.

£ Sedum cockerellii Britt.

g. Sedum griffithsii Rose

h. Sedum lanceolatum Torr. Syn.: Sedum stenopetalum Pursh

i. Sedum rhodanthum Gray

j. Sedum stelliforme Wats.

13. CROSSOSOMATACEAE Crossosoma Family

Apacheria chiricahuensis C. T. Mason-Chiricahua
rock flower

14- CUCURBITACEAE Gourd Family

Tumamoca macdougalii Rose-Tumamoc globeberry

45. EUPHORBIACEAE Spurge Family

a. Euphorbia plummerae Wats.-Woodland spurge

 Sapium biloculare (Wats.) Pax-Mexican jumpingbean

46. FABACEAE Pea Family [=Leguminosae]

e. Astragalus corbrensis Gray var. maguirei Kearney

b. Astragalus cremnophylax Barneby var. myriorraphis Barneby-Cliff milk-vetch

e. Astragalus hypoxylus Wats.-Huachuca milk-vetch

d. Astragalus nutriosensis Sanderson-Nutrioso milkvetch

e. Astragalus xiphoides (Barneby) Barneby–Gladiator milk-vetch

f. Cercis occidentalis Torr.-California redbud

g: Errazurizia rotundata (Woot.) Barneby Syn.: Parryella rotundata Woot.

Lysiloma microphylla Benth. var. thornberi (Britt. & Rose) Isely-Feather bush
 Syn.: Lysiloma thornberi Britt. & Rose

Parkinsonia aculeata L.-Jerusalem Thorn

i. Phaseolus supinus Wiggins & Rollins

47. FOUQUIERIACEAE Ocotillo Family Fouquieria splendens Engelm.—Ocotillo, coachwhip, monkey-tail

48. GENTIANACEAE Gentian Family

Gentianella wislizenii (Engelm.) J. Gillett

Syn.: Gentiana wislizenii Engelm.

19. LAMIACEAE Mint Family

e: Hedeoma diffusum Green-Flagstaff pennyroyal

b. Salvia dorrii ssp. mearnsii

Trichostema micranthum Gray

20. LILIACEAE Lily Family

a. Allium acuminatum Hook.

b. Allium bigelovii Wats.

e. Allium biseptrum Wats. var. palmeri (Wats.) Cronq.

Syn.: Allium palmeri Wats.

d. Allium cernuum Roth. var. neomexicanum (Rydb.) Macbr.—Nodding onion

e. Allium cernuum Roth. var. obtusum Ckll.

£. Allium geyeri Wats. var. geyeri

g: Allium geyeri Wats. var. tenerum Jones

h: Allium kunthii Don

i. Allium macropetalum Rydb.

j. Allium nevadense Wats. var. cristatum (Wats.) Ownbey

k. Allium nevadense Wats. var. nevadense

4. Allium parishii Wats.

m. Allium plummerae Wats.

Allium rhizomatum Woot. & Standl. Incl.: Allium glandulosum Link & Otto sensu Kearney & Peebles

e. Androstephium breviflorum Wats.-Funnel-lily

p. Calochortus ambiguus (Jones) Ownbey

Calochortus aureus Wats.
Syn.: Calochortus nuttallii Torr. & Gray var.
aureus (Wats.) Ownbey

F. Calochortus flexuosus Wats.-Straggling mariposa

5. Calochortus gunnisonii Wats.

t. Calochortus kennedyi Porter var. kennedyi--Desert mariposa

u. Calochortus kennedyi Porter var. munzii Jeps.

 Dichelostemma pulchellum (Salisbi) Heller var. pauciflorum (Torr.) Hoover

W. Disporum trachycarpum (Wats.) Benth. & Hook. var. subglabrum Kelso

Ex. Disporum trachycarpum (Wats.) Benth. & Hook. var. trachycarpum

y. Echeandia flavescens (Schultes & Schultes)
Cruden

Syn.: Anthericum torreyi Baker

Eremocrinum albomarginatum Jones

aa: Fritillaria atropurpurea Nutt.

bb. Hesperocallis undulata Gray-Ajo lily

ee. Lilium parryi Wats.-Lemon lily

dd. Lilium umbellatum Pursh

ee. Maianthemum racemosum (L.) Link. ssp. amplexicaule (Nutt.) LaFrankie

- Syn.: Smilacina racemosa (L.) Desf. var. amplexicaulis (Nutt.) Wats.
- ff. Maianthemum racemosum (L.) Link ssp. racemosum-False Solomon's seal

Syn.: Smilacina racemosa (L.) Desf. var. racemosa; Smilacina racemosa (L.) Desf. var. cylindrata Fern.

- gg. Maianthemum stellatum (L.) Link Syn.: Smilacina stellata (L.) Desf.—Starflower
- hh. Milla biflora Cav.-Mexican star
- ii. Nothoscordum texanum Jones
- ij. Polygonatum cobrense (Woot. & Standl.) Gates
- kk. Streptopus amplexifolius (L.) DC.-Twisted stalk
- 11. Triteleia lemmonae (Wats.) Greene
- mm. Triteleiopsis palmeri (Wats.) Hoover
- nn. Veratrum californicum Durand.-False hellebore
- 00. Zephyranthes longifolia Hemsl.-Plains rain lily
- pp. Zigadenus elegans Pursh-White camas, alkaligrass
- qq. Zigadenus paniculatus (Nutt.) Wats.-Sand-com
- ##: Zigadenus virescens (H. B. K.) Macbr.
- 21. MALVACEAE Mallow Family
 - a. Abutilon parishii Wats.-Tucson Indian mallow
 - b. Abutilon thurberi Gray-Baboquivari Indian mallow
- 22. ONAGRACEAE Evening Primrose Family Camissonia exilis (Raven) Raven
- 23. ORCHIDACEAE Orchid Family
 - Calypso bulbosa (L.) Oakes var. americana (R. Br.) Luer
 - b. Coeloglossum viride (L.) Hartmann var. virescens (Muhl.) Luer

 Syn: Habengria viridis (L.) R. Br. var. bracteata
 - Syn.: Habenaria viridis (L.) R. Br. var. bracteata (Muhl.) Gray
 - e. Corallorhiza maculata Raf.-Spotted coral root
 - d. Corallorhiza striata Lindl.-Striped coral root
 - e- Corallorhiza wisteriana Conrad-Spring coral root
 - £ Epipactis gigantea Douglas ex Hook.—Giant helleborine
 - E. Goodvera oblongifolia Raf.
 - h. Goodyera repens (L.) R. Br.
 - Hexalectris spicata (Walt.) Barnhart-Crested coral root
 - j. Listera convallarioides (Swartz) Nutt.-Broadleaved twayblade
 - k. Malaxis corymbosa (S. Wats.) Kuntze
 - 4. Malaxis ehrenbergii (Reichb. f.) Kuntze
 - m. Malaxis macrostachya (Lexarza) Kuntze-Mountain malaxia
 - Syn.: Malaxis soulei L. O. Williams
 - n: Malaxis tenuis (S. Wats.) Ames
 - e: Platanthera hyperborea (L.) Lindley var. gracilis (Lindley) Luer
 Syn.: Habenaria sparsiflora Wats. var. laxiflora (Rydb.) Correll
 - P. Platanthera hyperborea (L.) Lindley var. hyperborea—Northern green orchid Syn.: Habenaria hyperborea (L.) R. Br.
 - q: Platanthera limosa Lindl.—Thurber's bog orchid Syn.: Habenaria limosa (Lindley) Hemsley
 - Platanthera sparsiflora (Wats.) Schlechter var. ensifolia (Rydb.) Luer
 - s: Platanthera sparsiflora (Wats.) var. laxiflora (Rydb.) Correll

- # Platanthera sparsiflora (Wats.) Schlechter var. sparsiflora—Sparsely-flowered bog orchid Syn.: Habenaria sparsiflora Wats.
- Platanthera stricta Lindl.—Slender bog orchid Syn.: Habenaria saccata Greene; Platanthera saccata (Greene) Hulten
- Platanthera viridis (L.) R. Br. var. bracteata (Muhl.) Gray-Long-bracted habenaria
- w. Spiranthes michaucana (La Llave & Lex.) Hemsl.
- *. Spiranthes parasitica A. Rich. & Gal.
- y: Spiranthes romanzoffiana Cham.—Hooded ladies tresses
- 24. PAPAVERACEAE Poppy Family

Arctomecon californica Torr. & Frém.-Goldenbear poppy, Yellow-flowered desert poppy

25. PINACEAE Pine Family

Pinus aristata Engelm.-Bristlecone pine

- 26. POLYGONACEAE Buckwheat Family
 - a: Eriogonum apachense Reveal
 - b. Eriogonum capillare Small
 - e: Eriogonum mortonianum Reveal-Morton's buckwheat
 - d. Eriogonum ripleyi J. T. Howell-Ripley's wild buckwheat, Frazier's Well buckwheat
 - e. Eriogonum thompsonae Wats. var. atwoodii Reveal-Atwood's buckwheat
- 27. PORTULACEAE Purslane Family
 - Talinum humile Greene-Pinos Altos flame flower
 - b. Talinum marginatum Greene
 - e. Talinum validulum Greene-Tusayan flame flower
- 28. PRIMULACEAE Primrose Family
 - Dodecatheon alpinum (Gray) Greene ssp. majus H. J. Thompson
 - b. Dodecatheon dentatum Hook. ssp. ellisiae (Standl.) H. J. Thompson
 - e. Dodecatheon pulchellum (Raf.) Merrill
 - d. Primula hunnewellii Fern.
 - e. Primula rusbyi Greene
 - f. Primula specuicola Rydb.
- 29. RANUNCULACEAE Buttercup Family
 - Aquilegia caerulea James ssp. pinetorum (Tidest.)
 Payson-Rocky Mountain Columbine
 - b. Aquilegia chrysantha Gray
 - Aquilegia desertorum (Iones) Ckll.—Desert columbine, Mogollon columbine
 - d. Aquilegia elegantula Greene
 - e. Aquilegia longissima Gray-Long Spur Columbine
 - £ Aquilegia micrantha Eastw.
 - 😝 Aquilegia triternata Payson
- 30. ROSACEAE Rose Family
 - Rosa stellata Woot.—ssp. abyssa A. Phillips Grand Canyon rose
 - b. Vauquelinia californica (Torr.) Sarg. ssp. pauciflora (Standl.) Hess & Henrickson-Few-flowered Arizona rosewood
- 31. SCROPHULARIACEAE Figwort Family
 - e. Castilleja mogollonica Pennell
 - b. Penstemon albomarginatus Jones
 - e. Penstemon bicolor (Brandeg.) Clokey & Keck ssp. roseus Clokey & Keck
 - d. Penstemon clutei A. Nels.
 - e. Penstemon distans N. Holmgren-Mt. Trumbull beardtongue
 - Penstemon linarioides spp. maguirei
- 32. SIMAROUBACEAE Simarouba Family

Castela emoryi (Gray) Moran & Felger--Crucifix-ion thorn

Syn.: Holacantha emoryi Gray

33. STERCULIACEAE Cacao Family

Fremontodendron californicum (Torr.) Coville-Flannel bush

C. Export Restricted Protected Native Plants

The following list includes those protected native plants which are not included in the highly safeguarded entegory but are subject to overdepletion if their exportation from this state is permitted.

p.C. Salvage Assessed Protected Native Plants

The following list includes those <u>species of</u> native plants which that are not included in either the highly safeguarded or salvage restricted eategories <u>category</u> but have a sufficient value if salvaged to support the cost of salvage.

- 4. BIGNONIACEAE Bignonia Family
 - e- Chilopsis linearis (Cav.) Sweet var. arcuata Fosberg-Desert-willow
 - b. Chilopsis linearis (Cav.) Sweet var. glutinosa (Engelm.) Fosberg
- 2. FABACEAE Pea Family [=Leguminosae]
 - e. Cercidium floridum Benth.-Blue palo verde
 - b. Cercidium microphyllum (Torr.) Rose & Johnst.-Foothill palo verde
 - e. Olneya tesota Gray-Desert ironwood
 - e. Prosopis glandulosa Torr. var. glandulosa-Honey mesquite
 - Syn.: Prosopis juliflora (Swartz) DC. var. glandulosa (Torr.) Ckll.
 - e: Prosopis glandulosa Torr. var. torreyana (Benson) M. C. Johnst.-Western honey mesquite Syn.: Prosopis juliflora (Swartz) DC. var. torreyana Benson
 - f. Prosopis pubescens Benth.-Screwbean mesquite

- g. Prosopis velutina Woot.-Velvet mesquite Syn.: Prosopis juliflora (Swartz) DC. var. velutina (Woot.) Sarg.
- h: Psorothamnus spinosus (Gray) Barneby-Smoke tree.

Syn.: Dalea spinosa Gray

E.D. Harvest Restricted Protected Native Plants

The following list includes those <u>species of</u> native plants which that are not included in the highly safeguarded category but are subject to excessive harvesting or overcutting because of their intrinsic value.

- 4. AGAVACEAE Agave Family
 - a: Nolina bigelovii (Torr.) Wats.-Bigelow's nolina
 - b. Nolina microcarpa Wats.-Beargrass, sacahuista
 - e. Nolina parryi Wats.-Parry's nolina
 - Nolina texana Wats. var. compacta (Trel.) Johnst.— Bunchgrass
 - e. Yucca baccata Torr. var. baccata-Banana yucca
 - £ Yucca schidigera Roezl.-Mohave yucca, Spanish dagger
- 2. FABACEAE Pea Family [=Leguminosae]
 - e. Olneya tesota Gray-Desert ironwood
 - b. Prosopis glandulosa Torr. var. glandulosa-Honey mesquite
 - Syn.: Prosopis juliflora (Swartz) DC. var. glandulosa (Torr.) Ckll.
 - e: Prosopis glandulosa Torr. var. torreyana (Benson)
 M. C. Johnst.-Western honey mesquite
 - Syn.: Prosopis juliflora (Swartz) DC. var. torreyana Benson
 - d. Prosopis pubescens Benth.-Screwbean mesquite
 - e: Prosopis velutina Woot.-Velvet mesquite Syn.: Prosopis juliflora (Swartz) DC. var. velutina (Woot.) Sarg.

NOTICE OF FINAL RULEMAKING

TITLE 4. PROFESSIONS AND OCCUPATIONS

CHAPTER 7. BOARD OF CHIROPRACTIC EXAMINERS

PREAMBLE

1. Sections Affected

R4-7-902

Rulemaking Action

New Section

2. The specific authority for the rulemaking, including both the authorizing statute (general) and the statutes the rules are implementing (specific):

Authorizing statute: A.R.S. § 32-904(B)(2)

Implementing statute: A.R.S. § 32-924(B)(5)

3. The effective date of the rules:

September 11, 1997

4. A list of all previous notices appearing in the Register addressing the final rule:

Notice of Rulemaking Docket Opening: 2 A.A.R. 5087, December 27, 1996

Notice of Proposed Rulemaking: 3 A.A.R. 82, January 10, 1997

Notice of Supplemental Proposed Rulemaking: 3 A.A.R. 1316, May 16, 1997

Notices of Final Rulemaking

5. The name and address of agency personnel with whom persons may communicate regarding the rulemaking:

Name:

Patrice A. Pritzl, Executive Director

Address:

Board of Chiropratic Examiners 5060 North 19th Avenue, Suite 416

Phoenix, Arizona 85015

Telephone:

(602) 255-1444

Fax:

(602) 255-4289

6. An explanation of the rule, including the agency's reasons for initiating the rule:

R4-7-902 clearly defines the statutory term "unprofessional and dishonorable conduct" that occurs in the list of actions for which a chiropractic physician's license may be sanctioned under A.R.S. § 32-924.

7. A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision of this state:

Not applicable.

The summary of the economic, small business, and consumer impact:

With adoption of this rule, the impact on established Board procedures, compliance and investigation related costs is minimal. The rule defines unprofessional conduct, thus allowing the Board to define more clearly and utilize investigative and compliance proceedings better. The estimated cost to the Secretary of State's Office is minimal and stems from the Secretary of State's time publishing rules. There are no anticipated costs to licensees or the consumer public. The consumer public will benefit through standards clearly defined for the consumer public as well as the profession. Licensees will benefit in that defined and regulated standards within the profession enhance consumer confidence and encourage consumer utilization of services.

9. A description of the changes between the proposed rules, including supplemental notices, and final rules (if applicable):

The Notice of Final Rulemaking has deleted the following language, which appeared in the Notice of Proposed Rulemaking; "Paying, offering to pay, receiving or agreeing to receive a commission, rebate, or other consideration having a value which exceeds \$25 annually, directly, or indirectly to attorneys, or other licensed health care providers for referring patients". The giving or receiving of rebates is already addressed in statute.

10. A summary of the principal comments and the agency response to them:

In response to the Notice of Proposed Rulemaking, the Arizona Association of Chiropractic provided a position paper supported by oral comment and written support from 33 members which opposed 9 of the proposed items and requested amendments to 4 of the proposed items defining unprofessional conduct. In addition, 4 chiropractic physicians provided oral or written comment, independent of the Association, which focused on the request to provide protections for those doctors of chiropractic who provide information to the Board as per item number 12 of the proposed rules. The agency responded by amending 5 and deleting 1 of the 14 proposed definitions of unprofessional conduct.

In response to the Notice of Supplemental Rulemaking, the agency received oral comments from 10 representatives of the insurance industry. Oral comments objected to 2 of the amendments made in response to those comments received through the Notice of Proposed Rulemaking. Those amendments being the deletion of the item which addressed the giving or receiving of rebates and the amendment of item number 2 which deleted the verbiage, "3rd party payor". The agency responded by replacing the verbiage for "3rd party payor" in item number 2.

- 11. Any other matters prescribed by statute that are applicable to the specific agency or to any specific rule or class of rules:

 Not applicable.
- 12. Incorporations by reference and their location in the rules:

None.

13. Was this rule previously adopted as an emergency rule?

14. The full text of the rules follows:

TITLE 4. PROFESSIONS AND OCCUPATIONS

CHAPTER 7. BOARD OF CHIROPRACTIC EXAMINERS

ARTICLE 9. UNPROFESSIONAL CONDUCT

ities

924(B)(5), means:

1 Referring a nationt to a diag

Section

R4-7-902. Unprofessional or Dishonorable Conduct Activities

ARTICLE 9. UNPROFESSIONAL CONDUCT

R4-7-902. Unprofessional or Dishonorable Conduct Activ-

Referring a patient to a diagnostic or treatment facility
or prescribing goods and services to be purchased from
a facility in which the chiropractic physician has any
pecuniary interest, without disclosing in writing to the
patient and any 3rd party payor, the chiropractic physician's interest.

Unprofessional or dishonorable conduct, as used in A.R.S. § 32-

- Knowingly making a false or misleading statement to the Board, its investigators or representatives, a patient, or a 3rd party payor.
- 3. Failing to create and maintain a patient record that includes the patient's health history, examination findings, diagnostic results, x-ray films if taken, x-ray reports, treatment plan, and notes for each patient visit. The notes for each patient visit shall include the patient's name, the date of service, the chiropractic physician's findings, all services rendered, and the name or initials of the chiropractic physician who provided services to the patient.
- 4. Failing to maintain a patient's record, including x-rays, for at least 5 years after the last treatment date, or failing to provide written notice to the Board, about how to access the patient records of a chiropractic practice that is closed, for at least 5 years after each patient's last treatment date. The patient records of minors shall be maintained for 5 years beyond the minor's 18th birth-day
- 5. Failing to release a copy of a patient's record, diagnostic quality radiographic copy x-rays, or both to another licensed physician, the patient, or the authorized agent of the patient, within 10 business days of receiving a written request to do so, or failing to return original x-rays to a licensed physician within 10 business days of a written request to do so.
- Representing that the licensee is certified by this Board in a specialty area in which the licensee is not certified, or has academic or professional credentials that the licensee does not have.
- Practicing under, or billing for services under any name other than the name by which the chiropractic physician

- is licensed, including corporate, business, or other licensed health care providers' names, without first notifying the Board in writing.
- Suggesting, or having sexual contact, as defined in A.R.S. § 13-1401, with an individual in the course of patient treatment, (other then with an individual with whom a current consensual personal relationship exists before a chiropractor/patient relationship was established).
- Charging a fee for services not rendered.
- 10. Failing to allow properly authorized Board personnel to have, on demand by subpoena, access to any document, report, or record maintained by the chiropractic physician relating to the chiropractic physician's practice or professional activities.
- 11. Failing to supervise properly a chiropractic assistant employed by the chiropractic physician.
- 12. Failing to report in writing to the Board any information based upon personal knowledge that a chiropractic physician may be grossly incompetent, guilty of unprofessional or dishonorable conduct, or mentally or physically unable to provide chiropractic services safely. Any person who reports or provides information to the Board in good faith is not subjected to civil damages as a result of that action. If the informant requests that the informant's name not be disclosed, the Board shall not disclose the informant's name unless it is essential to the disciplinary proceedings conducted under this Section.
- Violating any federal or state law or rule or regulation applicable to the practice of chiropractic.

NOTICE OF FINAL RULEMAKING

TITLE 6. ECONOMIC SECURITY

CHAPTER 3. DEPARTMENT OF ECONOMIC SECURITY INCOME MAINTENANCE

Preamble

1.	Sections Affected	Rulemaking Action
	Article 25	Repeal
	R6-3-2501	Repeal
	R6-3-2502	Repeal
	R6-3-2503	Repeal
	R6-3-2504	Repeal
	R6-3-2505	Repeal
	R6-3-2506	Repeal
	R6-3-2507	Repeal

2. The specific authority for the rulemaking, including both the authorizing statute (general) and the statutes the rules are implementing (specific):

A.R.S. §§ 41-1954(A)(3); 46-134(12)

3. The effective date of the rules:

September 12, 1997.

4. A list of all previous notices appearing in the Register addressing the final rule:

Notice of Rulemaking Docket Opening: 3 A.A.R. 52, January 3, 1997.

Notice of Proposed Rulemaking: 3 A.A.R. 736, March 7, 1997.

Notices of Final Rulemaking

5. The name and address of agency personnel with whom persons may communicate regarding the rulemaking:

Name:

Vista Thompson Brown

Address:

Department of Economic Security 1789 West Jefferson, Site Code 837A

Phoenix, Arizona 85007

or

PO Box 6123, Site Code 837A Phoenix, Arizona 85005

Telephone:

(602) 542-6555

Fax:

(602) 542-6000

6. An explanation of the rule, including the agency's reason for initiating the rule:

These rules were adopted in March 1984 to govern a temporary demonstration project. Authority to operate the project ended after several years. The Department has not operated the project or used the rules since the late 1980's. The rules are unnecessary and should be repealed.

7. A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision of this state:

Not applicable.

8. The summary of the economic, small business, and consumer impact:

The repeal of these rules will have no measurable economic impact on any group. The repeal has intangible benefits by eliminating the confusion that results from having outdated, unenforced rules as a part of the *Arizona Administrative Code*.

- 9. A description of the changes between the proposed rules, including supplemental notices, and the final rules (if applicable):

 The Department did not make any changes between the proposed rules and the final rules.
- 10. A summary of the principal comments and the agency's response to them:

The Department did not schedule any public hearings on proposed rulemaking. No one requested a hearing or submitted any comment on the proposed rulemaking.

- 11. Any other matters prescribed by statute that are applicable to the specific agency or to any specific rule or class of rules:

 Not applicable.
- 12. <u>Incorporations by reference and their location in the rules:</u>
 Not applicable.
- Was this rule previously adopted as an emergency rule?
 Not applicable.
- 14. The full text of the rules follows:

TITLE 6. ECONOMIC SECURITY

CHAPTER 3. DEPARTMENT OF ECONOMIC SECURITY INCOME MAINTENANCE

ARTICLE 25. GRANT DIVERSION

Section R6-3-2501. Authority R6-3-2502. Definitions R6-3-2503. Eligibility Criteria R6-3-2504. Incentive Payment R6-3-2505. Adequate notice to recipients R6-3-2506. Child support collection R6-3-2507. Retroactive payments

ARTICLE 25. GRANT DIVERSION

R6-3-2501. Authority

The Arizona Department of Economic Security (DES) is the state agency responsible for the administration of a demonstration and research grant diversion project (Project), pursuant to Section 1115 of the Social Security Act, P.L. 98-21, and 42 U.S.C. 602 and A.R.S § 41-1954.

R6-3-2502. Definitions

The following definitions shall apply in this Article unless the context requires otherwise.

- "AFDC" means "Aid to Families with Dependent Children".
- 2: "Base Grant" means the total AFDC grant, including the amount of any previous deduction, the individual received in the month prior to entering the project. This amount shall be directed to the wage pool and shall remain unaltered during the project.
- 3. "Employment" means a permanent full-time job of 30 hours or more per week which is not temporary in nature and is unrelated to any labor dispute.
- 4. "Grant Diversion" means the process that allows a participating public or private sector employer in the state of Arizona to receive an eligible AFDC (A.C.R.R.Title 6, Chapter 4) recipient's base grant, or a portion of the grant for a period of not more than 6 months as an incen-

- tive for providing employment to an eligible AFDC recipient.
- "Wage Pool" means a poll of diverted AFDC grants which is used to pay the employer all or a portion of the AFDC grant for not more than 6 months.

R6-3-2503. Eligibility Criteria.

Eligibility for participation in Grant Diversion shall be limited to individuals who have been recipients of an AFDC grant for 3 consecutive months or who have completed a job search component of the Work Incentive Demonstration Program (A.C.R.R., Title 6, Chapter 10) or Job Training Partnership Act Program (A.C.R.R., Title 6, Chapter 11) and who meet all of the following criteria:

- 1. Have a Social Security number with the last digit 1 through 9;
- 2.. Have a base grant of \$180 or more:
- Have no previous experience of the project;
- Are not receiving unemployment insurance benefits;
- Are applicant payee pursuant to A.C.R.R., Title 6. Chapter 3, Article 4.

R6-3-2504. Incentive payment.

The rate and method of incentive payment from the wage pool to participating employers shall be determined by the DES. Before and payment is made, participating employers shall enter into a contract with DES as provided by A.R.S. § 41-1954.

R6-3-2505. Adequate notice to recipients

Completion and signature of an authorization form by the AFDC recipient to effect the grant at the earliest date following the commencement of employment shall constitute adequate notice pursuant to 45 CFR 205.10.

R6-3-2506. Child support collection

Child support collection on behalf of AFDC recipients in Grant Diversion shall continue in accordance with A.C.R.R. R6-3-413 while the AFDC recipient is participating in Grant Diversion.

R6-3-2507. Retroactive payments

Participation in Grant Diversion shall not preclude recipients from receiving retroactive payments to which they are entitled for the period prior to entering the project.

NOTICE OF FINAL RULEMAKING

TITLE 17. TRANSPORTATION

CHAPTER 4. DEPARTMENT OF TRANSPORTATION MOTOR VEHICLE DIVISION

PREAMBLE

Sections Affected

R17-4-217

Rulemaking Action

New Section

The specific authority for the rulemaking, including both the authorizing statute (general) and the statutes the rules are implementing (specific):

Authorizing statute: A.R.S. § 28-202

Implementing statute: A.R.S. § 28-313.01

The effective date of the rule:

September 12, 1997.

A list of all previous notices appearing in the Register, addressing the final rule:

Notice of Rulemaking Docket Opening: 3 A.A.R. 770, March 7, 1997.

Notice of Proposed Rulemaking: 3 A.A.R. 1299, May 16, 1997.

The name and address of agency personnel with whom persons may communicate regarding the rule:

Name:

Randall X. Ramsey

Address:

Motor Vehicle Division

1801 West Jefferson, MD 532M

Phoenix, Arizona 85007

Telephone:

(602) 255-8828

Fax:

(602) 407-3437

An explanation of the rule, including the agency's reasons for initiating the rule:

Vehicle registration has been for a 1-year period. The proposed rule allows owners of certain vehicles to register them for a 2year period. The Motor Vehicle Division will expend only 1/2 the staff hours to process biennial registrations compared to annual registrations. Vehicle owners who elect to register biennially will pay a fee equal to the annual registration fee; this will result in a savings of \$8 to \$49. The Motor Vehicle Division believes that biennial registration will benefit both the Division and the public. The legislature agreed and enacted A.R.S. § 28-313.01, which allows the director to provide for the biennial registra-

A showing of good cause why the rule is necessary to promote a state interest if the rule will diminish a previous grant of authority of a political subdivision of this state:

Not applicable.

Notices of Final Rulemaking

8. The summary of the economic, small business and consumer impacts:

EXECUTIVE SUMMARY

Vehicle owners who opt for biennial registration will save the 1-year registration fee which varies from \$8 to \$49. The owners will also save the time it takes to register their vehicle on an annual basis. The owners will lose the use of the money used to prepay the 2nd year fees. Private companies which are authorized to process title and registrations for the Motor Vehicle Division will lose potential business. The Motor Vehicle Division will save an estimated 30,000 staff hours in registration processing annually. The Motor Vehicle Division will lose \$3 million annually in registration fees. The Motor Vehicle Division will have the use of the 2nd year license taxes 12 months early. Biennial registration is voluntary and is not available to all vehicle owners.

ECONOMIC IMPACTS OF THE BIENNIAL REGISTRATION RULE (A.R.S. § 41-1055)

Persons Directly Affected by the Rule

- Vehicle owners who opt for biennial registration will save \$8-\$49 in annual registration fees but will lose the use
 of the money which was used to prepay the 2nd year registration. They will also save postage fees if they normally mail in their annual registration; they will save time if they normally go to a MVD facility to annually register their vehicle.
- 2. Those businesses which finance the purchase of vehicles and include registration fees in the sum financed will increase their earnings if the registration fees financed are biennial instead of annual.
- 3. The manufacturer of license plate registration tabs for Arizona will sell less tabs under biennial registration.
- 4. The Motor Vehicle Division will save staff hours processing registrations because biennial registrations will only need to be processed every 2 years instead of the current annual registrations.
- 5. Law enforcement will be affected. Biennial registrations will expire 50% less often than annual registrations.
- 6. Third party title and registration processors who are authorized to process vehicle registrations and charge a convenience fee will lose potential business because of the reduction in registration events for those owners who change from annual registration to biennial registration.
- 7. The taxpaying public will benefit by the registration processing staff hours saved by MVD.

Cost Benefit Analysis

Costs to MVD, the Implementing Agency

The costs to MVD for implementing the rule will be the development costs which are \$32,450. MVD will lose \$8-\$49 in registration fees every time a vehicle is registered biennially rather than annually. Based on the number of biennial registrations since August 1996, it is forecasted that there will be a loss of revenue in the amount of \$3,000,000 for the next 12-month period.

Benefits to MVD -- There will be a savings of 5 minutes for every biennial registration. Five minutes is the average time it takes to process a registration.

There have been 332,000 biennial registrations between August 1996 and February 1997. It is forecasted that there will be 740,000 biennial registrations in the next 12 months resulting in a time savings in registration processing time of 30,000 staff hours.

Costs to the Attorney General's Office (AGO) -- There are no costs to the AGO.

Benefits to the AGO -- There are no incremental benefits to the AGO.

Costs to Political Subdivisions

Costs to Applicant Private Businesses -- Private businesses that own vehicles and want to apply for biennial registration would lose 1 year use of the money which is used to prepay the 2nd year license tax.

Benefits to Applicant Private Businesses -- Private businesses that own vehicles and apply for biennial registration would save 1 year registration fee which is \$8 to \$49. The businesses would save the time it normally takes them to register.

Impacts on Public and Private Employment -- There will be an impact on public employment because of the anticipated savings of 30,000 staff hours.

There will be an impact on private employment. The manufacturer of license plate tabs will produce less biennial tabs than annual tabs.

Impacts on Small Business

Small Businesses Subject to the Rule -- Some of the applicants for biennial registration could be small businesses. There are no differential impacts on small or large businesses. Biennial registration is voluntary. There is no requirement that vehicle owners purchase biennial registrations.

Administrative Costs -- There are no administrative costs to small and other businesses.

Reduction of Impact on Small Businesses -- The voluntary nature of biennial registration makes reduction of impact on small businesses unnecessary.

Costs and Benefits to Private Persons -- A vehicle owner who applies for biennial registration would save 1 year registration fee which is \$8 to \$49. The owners would also save the time it normally takes them to register.

Probable Effects on State Revenues -- The loss of registration fees resulting from biennial registration will have a negative effect on State revenues.

Less Intrusive or Less Costly Alternative -- The rule allows for a savings of time and registration fees for those who opt for biennial registration. The registration is voluntary. No less intrusive or less costly alternatives were contemplated.

9. A description of the changes between the proposed rules, including supplemental notices, and final rules (if applicable):

The text of the final rule differs from that of the proposed rule in minor ways. Each change in text was made to enhance the clarity, conciseness, and understandability of the rule. None of the changes makes the final rule substantially different from the proposed rule. The persons affected by the final rule, and the rule's subject matter and effects are the same as those of the proposed rule.

10. A summary of the principal comments and the agency response to them:

There were no public comments received on this rule.

- 11. Any other matters prescribed by statute that are applicable to the specific agency or to any specific rule or class of rules:

 Not applicable.
- 12. <u>Incorporation by reference and their location in the rules:</u>
 None
- 13. Was this rule previously adopted as an emergency rule?
- 14. The full text of the rule follows:

TITLE 17. TRANSPORTATION

CHAPTER 4. DEPARTMENT OF TRANSPORTATION MOTOR VEHICLE DIVISION

ARTICLE 2. TITLES AND REGISTRATION

Section

R17-4-217. Biennial Registration

ARTICLE 2. TITLES AND REGISTRATION

R17-4-217. Biennial Registration

- A. <u>Definitions. In this Section, unless the context otherwise requires:</u>
 - "Alternative Form of Registration" means allocated registration, apportioned registration, interstate registration, and undersized mobile home plate registration.
 - 2. "Biennial" means once in every 2-year period.
 - 3. "Director" means the Assistant Director of the Arizona Department of Transportation, Motor Vehicle Division, or a designee of the Assistant Director.
 - 4. "Division" means the Motor Vehicle Division of the Arizona Department of Transportation.
 - 5. "IM 240 Test" means the emissions test prescribed by A.R.S. § 49-542(F)(2)(a).
 - "Nonqualified Vehicle" means a vehicle with an alternative form of registration, a vehicle required to have an annual emissions test, or a vehicle required to have an

- IM 240 test within 12 months from the date of registration.
- 7. "Qualified Vehicle" means a vehicle that does not have an alternative form of registration and is either exempt from emissions testing or is required to have the IM 240 test for the upcoming registration year before its registration may be established or renewed.
- 8. "Registration" means the authorization issued by the Division that allows a vehicle to use state highways.
- B. Biennial registration.
 - 1. Any vehicle not otherwise disqualified may be registered biennially.
 - Beginning August 5, 1997, a qualified vehicle with a vehicle license tax for the current year equal to or less than \$75 will automatically be selected for biennial registration, unless the owner chooses to register the vehicle annually. Beginning August 5 of each succeeding year through 2001, the Division shall increase by \$25 the amount of vehicle license tax that causes a qualified vehicle to be selected automatically for biennial registration.
 - A newly liened or newly leased vehicle will automatically be selected for biennial registration, unless the owner chooses to register the vehicle annually.

Notices of Final Rulemaking

- C. The owner of a vehicle that meets 1 of the following criteria shall not have the option of registering the vehicle biennially:
 - A vehicle required to have an IM 240 test within 12 months after the date of registration.
 - 2. A vehicle that requires an annual emissions test.
 - 3. A vehicle with an allocated registration.
 - 4. A vehicle with an apportioned registration.

- 5. A vehicle with an interstate registration.
- 6. A vehicle with an undersized mobile home plate registration.
- A vehicle with a registration exemption that is required to be certified annually, such as the exemption available to widows, widowers, and totally disabled persons other than totally disabled veterans.